



Pre-Qualification

TABLE OF CONTENTS

1. Company (Espectro General Trading)
2. Trade License / TRN Certificate
3. Technical Data Sheet
4. Method Statement
5. Recent Projects
6. Approvals PTW / Projects
7. Organization, Responsibility & Supervision
8. MTC
9. Compliance Statement
10. Quality / Risk Assessment



رخصة تجارية Commercial License

تفاصيل الرخصة / License Details

License No.	737592	رقم الرخصة
Company Name	ESPECTRO GENERAL TRADING	اسم الشركة
Business Name	ESPECTRO GENERAL TRADING	الاسم التجاري
License Category	Dep. of Economic Development	فئة الرخصة
Legal Type	Limited Liability Company - Single Owner (LLC - SO)	الشكل القانوني
Expiry Date	29/06/2026	تاريخ الإصدار
D&B D-U-N-S ® No	رقم العالمى	رقم الرخصة الام
Register No.	1746339	عضوية الغرفة
	اسبيكترو للتجارة العامة	
	اسبيكترو للتجارة العامة	
	دائرة التنمية الاقتصادية	
	شركة ذات مسؤولية محدودة - الشخص الواحد (ذ.م.م)	
	Issue Date	30/06/2015
	Main License No.	737592
	DCCI No.	255650

الاطراف / License Members

Share / الحصص	Role / الصفة	Nationality / الجنسية	Name / الاسم	No. / رقم الشخص
100.00%	مالك / Shares Owner	United Arab Emirates / الامارات	محمد نايف عبدالله الهريس	111602
	مدير / Manager	Syria / سوريا	محمد تيسير ضياء الدين بقاى	1026323
			MOHAMMAD NAYEF ABDULLA	
			MOHAMMAD TAYSEER DIAA ELDIN	
			BOUKAI	

نشاط الرخصة التجارية / License Activities

Activity	Status	الحالة	النشاط
General Trading	Active	فعال	تجارة عامة
العنوان / Address			
Phone No	971-4-5759272	تليفون	صندوق بريد
Fax No		فاكس	رقم القطعة
Mobile No	971-50-6268665	هاتف متحرك	المبريد الإلكتروني / Email
			mohamed.mgn26@gmail.com

مكتب رقم 138-2203-ملك احمد على على اكبر كلجين خرازي-الخليج التجاري

Print Date 02/07/2025 18:28 تاريخ الطباعة

Receipt No.

رقم الإيصال



يمكنك الآن تجديد رخصتك التجارية من خلال الرسائل النصية القصيرة، أرسل رقم الرخصة إلى 6969 (دو/ اتصالات) للحصول على اذن الدفع.

Now you can renew your trade license by sending a text message (SMS). Send your trade license

number to 6969 (Du / Etisalat) to receive payment voucher

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وثيقة إلكترونية معتمدة وصادرة بدون توقيع من دائرة الاقتصاد والسياحة في دبي. لمراجعة صحة البيانات الواردة في الرخصة يرجى مسح رمز الاستجابة السريعة
This is a certified e-document issued without signature by the department of Economy and Tourism. Kindly scan the QR Code to verify the certificate



شهادة تسجيل لضريبة القيمة المضافة في الامارات العربية المتحدة
Certificate of Registration for Value Added Tax in the United Arab Emirates

The Federal Tax Authority certifies that the entity below is
a registered person for Value Added Tax in the UAE

تشهد الهيئة الاتحادية للضرائب أن الجهة التالية مسجلة لضريبة القيمة
المضافة في الامارات العربية المتحدة

Full Arabic legal name	<u>اسبيكترو للتجارة العامة</u>	الاسم القانوني الكامل باللغة العربية
Full English legal name	<u>ESPECTRO GENERAL TRADING</u>	الاسم القانوني الكامل باللغة الانجليزية
Registered address	<u>Office 201, Mamzar, Deira, Dubai, Dubai, United Arab Emirates, 52913, +97143142000</u>	العنوان المسجل
Tax Registration Number	<u>100261630600003</u>	رقم التسجيل الضريبي
Effective Registration Date	<u>01/01/2018</u>	تاريخ التسجيل الفعلي
First VAT Return Period	<u>01 Jan 2018 - 31 May 2018 and quarterly thereafter</u>	فترة أول إقرار لضريبة القيمة المضافة
VAT Return due date	<u>28 Jun 2018</u>	تاريخ استحقاق إقرار ضريبة القيمة المضافة

Start and end dates of Tax periods: 1 Mar to 31 May, 1 Jun to 31 Aug, 1 Sep to 30
Nov, 1 Dec to 28/29 Feb

بداية ونهاية الفترات الضريبية

يرجى التأكد من صحة تفاصيل الشهادة. يجب إبلاغ الهيئة الاتحادية للضرائب في حال تغيير الاسس التي حصلت فيها على رقم التسجيل
الضريبي الخاص بك.

Please check that the details on this certificate are correct. You must inform the Federal Tax Authority of any change on the
basis of which you obtained your Tax Registration Number.



Issuing Date:

05/04/2018

تاريخ الإصدار

CERTIFICATE

This is to Certify that the
Environmental Management System
of
Espectro General Trading

Office 201, Mamzar, Deira, Dubai,
United Arab Emirates, 52913,

Has been independently assessed and is
compliant with the requirements of:

ISO 14001:2015

For the following scope of activities:

Supply & Installation of Prefab Modular Cabins

Certificate Number: AE-13283 EC

Date of Initial Registration	07/08/2025
Date of this Certificate	07/08/2025
Certificate Validity	07/08/2028
Recertification Date	07/08/2028



Jennifer Dean

**On Behalf of Certification Approval Panel
System Certification International**



CERTIFICATE

This is to Certify that the
Occupational Health & Safety Management System
of

Espectro General Trading

Office 201, Mamzar, Deira, Dubai,
United Arab Emirates, 52913,

Has been independently assessed and is
compliant with the requirements of:

ISO 45001:2018

For the following scope of activities:

Supply & Installation of Prefab Modular Cabins

Certificate Number: AE-13283 OHS

Date of Initial Registration	07/08/2025
Date of this Certificate	07/08/2025
Certificate Validity	07/08/2028
Recertification Date	07/08/2028



Jennifer Dean

**On Behalf of Certification Approval Panel
System Certification International**



CERTIFICATE

This is to Certify that the
Quality Management System
of

Espectro General Trading

Office 201, Mamzar, Deira, Dubai,
United Arab Emirates, 52913,

Has been independently assessed and is
compliant with the requirements of:

ISO 9001:2015

For the following scope of activities:

Supply & Installation of Prefab Modular Cabins

Certificate Number: AE-13283 QC

Date of Initial Registration	07/08/2025
Date of this Certificate	07/08/2025
Certificate Validity	07/08/2028
Recertification Date	07/08/2028



Jennifer Dean

**On Behalf of Certification Approval Panel
System Certification International**





TECHNICAL DATA SHEET

Fabrication, Supply, Delivery, Commissioning and Handing Over of Prefabricated Aluminum Curve Security Cabin complete with Doors, Windows including Staircase, Handrails, Electrical, Plumbing, Sanitary Ware, Wooden Desk, Finishes, Accessories, Fittings, etc. _all as per the Main Contractor, Engineer, Employer and Concerned Authority approval.

Specifications:

Dimension: 2.5m (W) x 5.5m (L) x 4.0m (H)

Steel Structure:

- Anti-Rust Coated ASTM MTC-MS Tubes 100 x 50mm Main Frame Structure from **KSA/Oman**.
- Anti-Rust Coated ASTM MTC-MS Tubes 50 x50 Support for Structure from **KSA/Oman**.
- Anti-Rust Coated ASTM MTC-MS Base Plate for Anchor Bolt fixation on steel tube legs.

Flooring:

- 0.7mm thick GI Sheet + 12mm Marine Plywood + 12mm Cement Flooring finish with 2mm thick Vinyl Flooring from **Germany** and 10m H Vinyl Skirting from **Turkey**.

Internal & External Walls Cladding:

- 4mm thick FR Aluminum Composite Cladding, Glossy White (internal) and external to be selected (from **USA**) with 50mm thick Rockwool insulation (**UAE**) with a density of 48kgs/m³ and SS Brush Finish Strips Gr. 304, 4cm x 0.8mm as per design (for external) from **Taiwan**.

Roof & Ceiling:

- FR Flat Sandwich Panel Roofing with 50mm thick and density of 48kg/m³ (**UAE**) sealed with 2x coats Terraco Waterproofing (**Spain**)
- 60 x 60 x 2cm Gypsum thick frosted false ceiling (**Donn - KSA**) with 50mm thick Rockwool insulation (48kgs/m³) (**UAE**)

Doors & Windows:

- Aluminum Framed Powder Coated Profile from **Gulf Extrusions**.
- 6mm thick Bronze Tinted Tempered Single Glazed Glass Sliding Window/Door from **Guardian-UAE**.
- 6mm thick Bronze Tinted UV Reflective Polycarbonate sheet unbreakable for round fixed front window (**Germany**) or Clear Glass Tempered (**Belgium**).

Plumbing (Sanitary and Fittings):

- RAK Ceramic / Milano Sanitary and Fittings (**UAE**) (Floor Mounted Stand Wash Basin, 6mm Guardian Mirror, Hand Towel, Soap Dispenser, Tissue Holder, Shataf/Hand Bidet-RAK / Milano, WC Std., SS 316 Grade Floor trap Cover, Heavy Duty Hot / Cold Mixture & Milano Automatic Hand, Dryer
- RAK PPR Thermal concealed piping for water inlet.
- Atlas PVC piping for drainage concealed.
- GRP/PVC drainage and water storage tanks 400 lit., (1 x 0.8 x 0.6m, 30cm freeboard)
- Ceiling Type Exhaust Fan with 125CFM Air Flow till Roof 6-inch Elbow (**KDK/Kenwell**).

Electrical:

- Single Phase cabling concealed (Ducab-UAE)
- LED Lighting as per specs
- Black Matt Color switches and sockets with USB (Novex - UK)



METHOD STATEMENT

Project Name	Construction of Live Stock Facility in the Khalifa Port Logistics, Abu Dhabi (Contract No. 2101-284)
Employer	M/s Abu Dhabi Ports Company (PJSC)
Engineer	M/s AMAR Golden Design LLC
Main Contractor	M/s Asia Prime General Contracting Co. L.L.C. (Asia-Prime)
Sub Contractor	M/s Espectro General Trading
Asia-Prime Job No.	ADJ-22000043 (J-43)
Subject	Prefabricated Aluminum Curve Security Cabin Works

General Description

This method statement covers the various methods utilized to Supply & Install the Modular Cabin as per client guidelines and manufacturer standards.

Equipment for Prefabricated Unit Finishing Works at Site:

Power Tools & Cordless Tighter

Materials at the Site

2.3.1 Low Bed Trailer shall be arranged by Espectro for delivery of the unit at the site. Client to provide a minimum 100 Ton Crane for Offloading the unit.

Planning & Preparation

- ✓ After commencing the Supply & Installation of Prefab Cabins production activities, necessary approval from the concerned shall be obtained.

Work Methodology

- ✓ Site Planning & preparing the Shop drawings for approval and making execution drawings for the site.
- ✓ Purchase request: before making the requests all stock materials & tools availability will be checked.
- ✓ Production order: will be issued after all drawings are approved. Order will be included all the drawings and specs. & Quantities of the materials & tools for the project.
- ✓ Program Planning: will be made by the project Engineer, for each activity, materials, workers, date & task related to the project.
- ✓ Work report: daily QC & Production reports will be maintained.
- ✓ All drawings/designs are controlled & followed up. All designs/drawings with updated copies are distributed via email to the manager, and production team & for office records.
- ✓ The kiosk will be produced in the production division of Espectro & Transported to the site as one-shot delivery.

Assembly on Site

- ✓ The Prefabricated Cabin shall be transported by Low Bed Trailer & 100 Ton Crane shall available for offloading the unit. Under the circumstances of restriction of Crane Pickup & 4x4 Crane inside the facility.



- ✓ Each unit will be fabricated as a complete product at Espectro Production Facility.
- ✓ Electrical wiring & connection to the Distribution board will be done at the production facility of Espectro.

ENVIRONMENTAL, SAFETY AND HEALTH

Risk Assessment

A preliminary hazard analysis should be done.

EMERGENCY PROCEDURE

1. A safety induction course will be given to all individuals who are working at the site or related to the activity.
2. HSE Officer will give necessary guidelines to the workforce and ensure that those working on site are wearing necessary personnel protective equipment.
3. The site team will be responsible for keeping away vehicles/equipment safely away from the services and other concerned area.
4. A first Aid kit will be available at all times in the area.



RECENT PROJECTS

Project: Fab & Supply of Premium Retail Express Mobile Unit

Client: Papa Johns

Project Completion: 10th Nov 2022

Project: Dubai Police Security Cabins

Client: Dubai Police

Project Completion: 20th April 2022

Project: M Power Station Modular Cabin with Trailer Supply

Client: DEWA

Project Completion: 16th June 2022

Project: Fab & Supply of Premium Valet Cabins

Client: Museum of The Future, Dubai

Project Completion: 5th July 2022

Project: Fab & Supply of Premium Security Cabins

Client: Lapita Resorts, Marriott Hospitality

Project Completion: 20th June 2021

Project: Fab & Supply of Modular Golf Tuck Shop

Client: Damac Properties

Project Completion: 20th June 2020

APPROVALS PTW / PROJECTS



MATERIAL SUBMITTAL

Project	Dubai Arena	Package	CE0002 (ASGC) - (ASGC) Design Build Contractor
Originator	ASGC Construction LLC	Recipient	Dar Al Handasah
Location	DA - Dubai Arena	Revision	1
Subject	Prefabricated Aluminum Cabin (Security Booth)	Document#	MR01-ASG-CE0002-MEI-MAT-0624
Discipline	MEI (Infra)	Category	Materials
Dwg Ref	MR01-DAR-DD-DAZZ-ZZZ-PLU-ZZ-4000/CO-DAZZ-000-WFT-ZZ-5505	BOQ Ref	
Spec Ref	233413	Standards	

Delivery			
Mfr Name	Espectro General Trading	Origin	Local
Address		Local Agent	Espectro General Trading
Delivery Duration		Arrival Time on Site	
Date Req on Site		Latest Date of Order	

Submitter Comments

Prefabricated Aluminum Cabin (Security Booth)


Submitted By : Proscap

Date : 26-May-18

Supervision Consultant / AOR Comments




Auth. Signatory



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مطارات دبي
DUBAI AIRPORTS
Connecting the World

Ref. : H-FO/SA/NOC/EKSC/22-572
Date: : 19th August 2022

M/s Emirates Sky Cargo
Dubai Airports

FAO. Mohammed Niyaz, Facilities Maintenance Manager

Subject: No Objection Certificate (NOC) for Design Submittal

Project No: 22278
Project Title: PORTA CABINS FOR ECD
Project Location: CTO/ FG1

Further to your submission E-mail, dated 09th June 2022, Dubai Airports confirms it's No Objection to the above-mentioned Works, subject to the following conditions:

Specific Project Conditions:

Civil:

1. No objection to proceed with the installation of portacabins in the east cross dock by EK as per the scope of works.
2. The materials fire ratings for the cladding, walls and the ceiling shall be as per AFS recommendation.
3. The installation of the portacabin should not affect any existing DA services.
4. The power cables from the feeder pillar till the new cabin shall be protected from any vehicle impact.
5. Contractor to resubmit the location plans based on the comments indicated.
6. DA AFS team approvals shall be obtained on bringing in portacabins.
7. EK to secure approvals from Mr. Nauman's/Control of Airside Works team, and the user to apply for PTW.
8. Agreement shall be made with Mr. Jude/Mr. James from commercial team on the ownership of the portacabins, removal of the portacabin after its use, location of installation and maintenance aspects of the portacabins. The maintenance shall be under the clients' responsibility.
9. We would recommend to permanently paste the owner and user details on the portacabin itself for avoiding any confusion in the future.

Electrical:

1. No Comments

HVAC:

1. No SOW

Plumbing:

1. No SOW

Fire Fighting:

1. No SOW

ELV:

1. No SOW

General NOC Conditions:

1. During the execution of the works, FOC will provide technical surveillance on a periodic basis which will be unannounced; the hourly rate shall be AED 72.



Request for Extension of PTW

Work Location H-Station PTW No. to be extended P.O. # 3051701637

Date of PTW Issued (Existing) 28.12.17 Date of PTW Expire (Existing) 31.7.2018

Kindly extend this PTW up to 30.9.2018 due to To complete the balance works.

Contractor's Name & Signature (Sarhan Khan) Date 7.8.18

M/s. Espectro Gen. Trading


(Jawad Akhtar)
P&E - Civil DEWA
Engineer In charge

Date: 07.8.2018

Note: - PTW for installation of prefabricated visitors room at H-Station main gate area (PO # 3051701637) may be extended till 30.09.2018 as requested. Comments in original PTW shall be followed.


for VP-P3



PERMIT TO WORK (PTW) Valid for Date indicated Part A section 3 ONLY

PTW	Serial No	70.
HPTW if any	Serial No	



PART A

- This permit is issued to: (Name): TAMER WADI DE MARINUS PERFORMANCE
- Location: (Site/Work Area): BLUEWATER RTA FERRY TERMINAL
16:00 HR 18:00 HR
- This permit is valid from: 30.01.19 (date/time) to: 07.02.19 (date/time)
- This permit is issued for the following work: SIGNAGE

5. Type of Work: (tick appropriate box/boxes)

ISOLATION WORK	ELECTRICAL WORK 650V AC 100% DC MAX	FIRE ALARM/SPRINKLER SYSTEM	HPHW MPMW	HAZARDOUS FLAMMABLE SUBSTANCES IN USE	LIFTS/ LIFTING EQUIPMENT (includes cradle hoists)
PRESSURE SYSTEM	WORK AT HEIGHT	EXTERNAL CONTRACTOR USED	CONFINED SPACE	GAS WORK	HOT WORK APPENDIX A

Other Work Process (Please specify): DRILLING & GRINDING

PART D

SAFETY EQUIPMENT AND PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS			
EQUIPMENT SPECIFIED	✓	PPE SPECIFIED	✓
Respiratory protective equipment required		Gloves (Specify type)	
Low voltage equipment/lighting 24V or less		Safety boots/shoes with shoe protection covers	
Mechanical ventilation required		Dust mask required (Specify type)	
Dedicated communication system required		Overalls	
Resuscitation equipment required		Incllement weather clothing	
Barriers and warning signs to be erected		Hard Hat	
Fall arrest/travel limit harness equipment		Ear Defenders	
Flameproof lamps		Eye protection	

PART E SAFE WORKING PROCEDURES

- Work area must be secured from unauthorised access, if this cannot be achieved, work must be stopped until the situation is resolved.
- Pre-work Precautions and Pre-work Safety Treatment.
Steaming out / Water Wash / etc.
- Other precautions if any Part B answer is No.

PART B

	SAFETY PROGRAMME	Yes	N/A
B.1	Method Statement / Risk Assessment / Insurances Received and approved	No	
B.2	The plant or item of equipment has been isolated from all sources of energy and is certified free of any hazardous substances. (LOTO Applied)		
B.3	All associated supply line valves have been closed and locked off.		
B.4	The relevant feed pipelines have been drained down.		
B.5	The fire detection and fire suppression systems has been isolated.		
B.6	Barriers have been erected and danger/caution notices displayed.		
B.7	All persons potentially at risk have been notified of the work programme.		
B.8	Safety and emergency information has been issued to contractor.		
B.9	Plant system recently serviced and is in safe condition to use.		

Part C (YES / NO)

C.1	Is there any Access Block	C.2	Noisy Work
C.3	CMD approval required	C.4	Apartment access required
C.5	Any services interruption	C.6	Residents Notification is required
C.7	Authorities Approval required	C.8	Other precautions required

If Any answered with Yes, please specify the action taken

PART F

Authorization by Responsible Appointed Person (AP) Imdad

1 I hereby declare that the isolators detailed in Part B of this form have been completed except when otherwise specified and it is safe to undertake the work.
Date: 30/1/19 Print Name: Nithin Mohandas Signature: [Signature]

2 Acceptance by Contractor or other Competent Person
I ALAA MUHAMMAD on behalf of MARINUS PERFORMANCE Company acknowledge receipt of this permit and will adhere to the safe working procedures detailed in it. In addition, I will ensure that the work is undertaken in accordance with the risk assessments and method statements provided by my Company.
Date: 30 JAN 2019 Print Name: ALAA MUHAMMAD Signature: [Signature]

3 Hand back, completion by contractor who undertook the work
I [Signature] on behalf of [Signature] Company declare that the work specified in Part A of this permit has been successfully completed and tested and that all persons, work equipment and wastes have been withdrawn from the work area.
Date: [Signature] Print Name: [Signature] Signature: [Signature]

4 Cancellation by Client Appointed Person
I hereby declare that the work described in Part A has been completed, tested and that all isolations in Part B have been removed, the plant/equipment/work area has been re-commissioned and returned to normal use.
Date: [Signature] Print Name: [Signature] Signature: [Signature]



ORGANIZATION, RESPONSIBILITY & SUPERVISION

- i. Project Manager:
To ensure all operations are in accordance with the relevant Project contract specifications and this method statement.
- ii. Production Engineer:
To ensure all operations are in accordance with the relevant project contract specifications and this method statement. Also, ensure the accuracy of the work done by the site engineers.
- iii. QC Engineer:
Ensure that the work is carried out as per the specification requirements. If required, necessary tests are to be carried out for conformity with the work.
- iv. Site Supervisor:
To check the work as to be done according to the drawings and according to this method statement. Allocation of daily work to the foremen.
- v. Site Foreman:
To carry out the work with proper control over labor and equipment, to monitor and instruct the movements of the equipment at the site.
- vi. Labors (Skilled / Unskilled):
Follow the instructions of the site engineers and foreman to carry out the job.

Work Force:

S.No.	Position
1	Project Manager (SARHAN KHAN)
2	Production Engineer (TAYSEER BOUKAI)
3	Site Supervisor (USMAN GHANI)
4	Site Foreman (SHAMSHAD ALI)
5	Skilled Labour
6	Unskilled Labour



SPECTRO
GENERAL TRADING

MTC



التمر للصناعات المعدنية
Tiger Steel Industries LLC


P.O.BOX: 31165, ICAD-II, ABU DHABI, U.A.E.

MANUFACTURER TEST CERTIFICATE



CUSTOMER : Shams Al Madinah Building Material Tr.LLC										DATE : 26.04.2022									
P.O.BOX : 79667										MTC NO. : TSI/AD-22-802									
SHJ, UAE																			
TEL NO :- 009716 5360032																			
WE CERTIFY THAT THE MATERIAL ERW STEEL TUBES & PIPES HAVE BEEN MANUFACTURED ACCORDING TO ASTM A500-13 GR.A.																			
ALL CHEMICAL AND MECHANICAL PROPERTIES ALSO CONFORMS TO ASTM A500-13 GR.A.																			
S.No.	SIZE (mm)	THICK- NESS (mm)	LENGTH (Mtr.)	KG/MTR	PIECES	TOTAL WEIGHT (MT)	BATCH NO.	HEAT NO.	CHEMICAL COMPOSITION (MAX)				MECH. PROPERTIES (MIN)			SQUARE NESS (°)	CORNER RADIO (mm)	TWIST mm	
									C %	Mn %	P %	S %	YST (MPa)	UTS (MPa)	EL %				
SPECIFIED REQUIREMENTS									0.300	1.400	0.045	0.045	270	310	25	90±2	3T Max	--	
1	100X50	3.00	6.00	6.601	50	1.980	4042/200305	812804	0.128	0.466	0.007	0.015	324	424	36	90±1	5.5/6.0	1.0	

Note: Inspection Certificate Model No. EN:10204-3.1


 AUTHORIZED SIGNATORY
(QA/QC)

F:TSI/QC/07 Rev.00

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AJMAL STEEL		MILL TEST CERTIFICATE (EN 10204:2004 TYPE 3.1)												
Customer / Client		Shams Al Madinah Bldg. Mat. Trdg. LLC								Certificate No.: AJS/TC/06-028, Rev.00				
Project		1 - - - - -								Dated : 28.06.2022				
P.O.No		:4938								Steel Making Process: Radio-Oxygen				
Pipe Manufacturer & Location		: AJMAL STEEL TUBES & PIPES INDUSTRIES LLC												
Grade & Specification		: ASTM A 500, Grade A												
		: Cold formed welded and Carbon Steel Structural Tubing in Round and Shapes												
PRODUCT/HEAT ANALYSIS														
S.No	Pipe No. / Product Dimensions	Type of Pipe	No. of PCS	Heat No. Req.	C%	Mn%	P%	S%	Cu% (min)	NR	B%	CEV	REMARKS	
1	59X59 MM X 3.09 MM X 6.099 MTR	MS SQUARE TUBE	174	A233835	0.300	1.49	0.045	---	0.18	0.007	---	---	P/A	
MECHANICAL TESTS														
S.No	Heat No.	Tensile Test Values						(c) Flattening Test	(h) Squareness of Sides	(i) Straightness	(b) Outside Dia	(j) Twist	(k) Radius of Corners (3T max.)	(f) Concave / Convex
		Round Pipes			Section Pipes									
		Y.S. (Mpa)	UTS (Mpa)	EL (%)	Y.S. (Mpa)	UTS (Mpa)	EL (%)							
	Req.	230	310	25	270	310	25							
1	A233835	NA	NA	NA	330	451	32	PASS	96 ^B	PASS	PASS	PASS	5.6	PASS
Note -1 (a) Bendation % = $\frac{\text{thick} \times 100}{\text{thick} + 17}$ near 5 mm. & above 25 mm. (b) Outside Dia = 16.75% of specified OD (c) The Flattening test shall be made on round Pipes only. (d) Straightness = 0.2% of the pipe length (e) Wall thickness = 110% of specified Wall thickness (f) Convexity & Concavity shall be tested only Section Pipes. 1) Over OD 65 to 10 mm = 50.6 mm 2) Over OD 90 to 140 mm = 50.8 mm (g) Over OD 140 mm = 21% of large Dimension (h) Bend Height = Without Removal of the Inside Flash (As Customer requirement) (i) Squareness of Corners = 99.5.2" Max (Applicable Only Section Pipes) Note -2 1) Y.S. = Yield Strength, U.T.S = Ultimate Tensile Strength, EL = Elongation 2) CRH = circular hollow section / RH = rectangular hollow section / SHS = square hollow section. 3) P/A = Product Analysis, L/A = Load Analysis & W/A=Heat Analysis 4) OD = Out side Diameter, NA = Not Applicable														
It is certified that pipes listed in this certificate are manufactured, Examined, Tested and comply according ASTM A500 Grade, A														
LAB Inspector (Nizar Ahmed)		Quality Manager (Mangesh Bhandari)												
20120417-Ex16065 GF/H/150/1912061 Cert No.: 3068550 DAD 7490956/12942 CODED2633-01 1922-CFR-136 178 OE/1155/1302 1022-CFR-1219 ENK03553 GRN/25952 REV.02														



AJMAL STEEL		MILL TEST CERTIFICATE (EN 10204:2004 TYPE 3.1)												
Customer / Client		Shams Al Madinah Bldg, Mafli, Trdg, LLC										Certificate No.: AJS/TC/07-017, Rev.00		
Project		: -----										Dated : 07.07.2021		
P.O.No		: 4938										Steel Making Process: Basic-Oxygen		
Pipe Manufacturer & Location		: AJMAL STEEL TUBES & PIPES INDUSTRIES L.L.C.												
Grade &		: ASTM A 500, Grade A												
Specification		: Cold formed welded and Carbon Steel Structural Tubing in Round and Shapes												
PRODUCT/HEAT ANALYSIS														
Sr.No	Pipe No. / Product Dimensions	Type of Pipe	No. of pcs	Heat No.	C%	Mn%	P%	S%	Cu% (min)	N%	S%	CEV	REMARKS	
				Req	0.300	1.40	0.045	--	0.18	0.001	--	--		
1	50X50 MM X 2.09 MM X 6.000 MTR	M.S. SQUARE TUBE	704	2004081	0.088	0.528	0.015	0.006	0.210	0.005	--	--	P/A	
MECHANICAL TESTS														
Sr.No	Heat No.	Tensile Test Values						(c) Flattening Test	(h) Squareness of Sides	(d) Straightness	(b) Outside Dia	(j) Twist	(i) Radius of Corners (3T max.)	(f) Concave / Convex
		Round Pipes			Section Pipes									
		Y.S. (Mpa)	U.T.S. (Mpa)	EL. (%)	Y.S. (Mpa)	U.T.S. (Mpa)	EL. (%)							
	Req	230	310	25	270	310	25							
1	2004081	NA	NA	NA	340	410	31	PASS	90°	PASS	PASS	PASS	3.6	PASS
<p>Note - 1</p> <p>(a) Elongation % = $\frac{\text{thick} < 3.05 \text{ mm}}{(5d+17)} \times 100$ min. & above 25 min.</p> <p>(b) Outside Dia = 10.75% of Specified OD</p> <p>(c) The Flattening test shall be made on round Pipes only.</p> <p>(d) Straightness = 0.2% of the pipe length</p> <p>(e) Wall Thickness = $\pm 10\%$ of Specified Wall Thickness</p> <p>(f) Convexity & Concavity shall be tested only Section Pipes.</p> <p>(g) Brak Height = Without Removal of the Inside Flatzh (As Customer requirement)</p> <p>(h) Squareness of Corners = $10^{\circ} \pm 2^{\circ}$ Max. (Applicable Only Section Pipes)</p> <p>Note - 2</p> <p>1) Y.S. = Yield Strength, U.T.S. = Ultimate Tensile Strength, EL. = Elongation</p> <p>2) CHS = circular hollow section / RHS = rectangular hollow section / SHS = square hollow section.</p> <p>3) P/A = Product Analysis, L/A = Laddle Analysis & H/A = Heat Analysis</p> <p>4) OD = Out side Diameter, NA = Not Applicable</p>														
It is certified that pipes listed in this certificate are manufactured, Examined, Tested and comply according ASTM A500 Grade. A														
<div style="display: flex; justify-content: space-between;"> <div> LAB Inspector (Nizar Ahamed) </div> <div> Quality Manager (Mangesh Bhandari) </div> </div>														
<div style="display: flex; justify-content: space-around; align-items: center;"> </div> <p>20120417-Ex16065 SF/N/15/01/012/051 Cert No.: 3058650 DAS 74985951/28/Q C0522633-01 1922-CPR-138 178 CE/1155/19/02 1922-CPR-1319 REV 02</p>														

COMPLIANCE STATEMENT

As per captioned reference, we hereby confirm & submit the following for your record info:

Supply and installation of Standard Aluminum booth including internal and external finishes equipped with AC Unit, Interior LED Fixtures, One sliding door on one side & Shelf, Fixed Window and Sliding Window all in accordance with attached detail drawing & design.

Dimension: 2.5m (W) x 5.5m (L) x 4.0m (H)

Colour of External Walls: TBC

Colour of Internal Walls: GLOSSY WHITE

Material submittal for major accessories shall be provided to the client upon confirmation of the order.

QUALITY / RISK ASSESSMENT

3.1 Risk Assessment

A preliminary hazard analysis should be done.



EMERGENCY PROCEDURE

5. A safety induction course will be given to all individuals who are working at the site or related to the activity.
6. HSE Officer will give necessary guidelines to the workforce and ensure that those working on site are wearing necessary personnel protective equipment.
7. The site team will be responsible for keeping away vehicles/equipment safely away from the services and other concerned area.
8. A first Aid kit will be available at all times in the area.

QUALITY ASSURANCE

"Committed To Providing Quality Services and Products"

In line with quality benchmarks, Espectro Modular Cabins places a strong focus on quality compliance. The company offers international standard Cubicle Bathrooms at a comparatively low cost in the competitive market. Besides, assuring optimal product quality, superior quality raw materials and eco-friendly technology are used in manufacturing and designing Portable Cubicle Bathrooms. The company also recruits efficient quality controllers who conduct stringent quality tests on products on varied parameters like durability, precision dimensions and raw material, prior to the final dispatch.

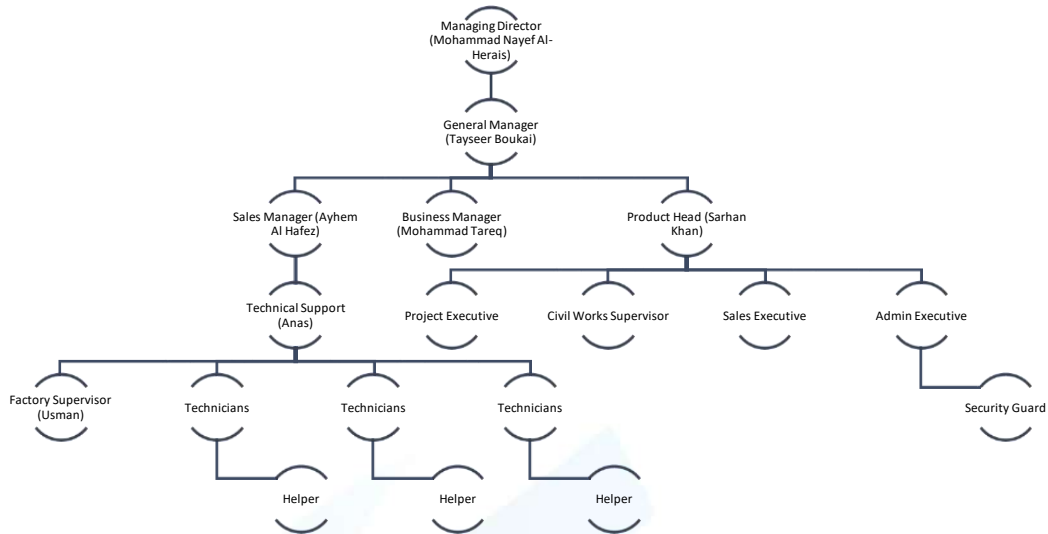
QA/QC Plan:

- The Inventory Team leader approves the plan provided by the Operations Manager. QA/QC Personnel reviews the draft attendant file for the previous inventory and prepares the preliminary attendant file for the current inventory.
- According to QA/QC Plan, the inventory (or part of the inventory) is sent for check and review.
- QA/QC or OPS Manager obtains the results of check and review. It is reasonable to submit these results on updating each record on Espectro Software Systems.
- QA/QC or OPS Manager registers findings in the checklist and attendant file, as well as processes this information and makes decision about corrective actions.
- The person responsible for corrective actions carries out this work and reports to QA/QC or OPS Manager for updating the checklist and attendant file.
- QA/QC or OPS Manager prepares the QA/QC Final Report to the Inventory Expert and a draft attendant file it for the next inventory quality checkup.



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ORGANIZATIONAL CHART



LOCATION MAP / CONTACT DETAILS

Head Office: Office # 805, 8th Floor, Buheira Corniche, Al Majaz, Sharjah - UAE

P.O. Box: 52913 Dubai-UAE

M: +971 50 7070160

M: +971 55 7070160

E: info@spectro-me.com

<https://goo.gl/maps/4jpDnv8Nu2z42VU56>

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MATERIAL SPECS / ORIGIN / DATA SHEET

www.espectro-me.com

STEEL STRUCTURE

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		T S I METAL INDUSTRIES LLC P.O.BOX: 31165, ICAD-II, ABU DHABI, U.A.E. MANUFACTURER TEST CERTIFICATE								 <small>THE URS GROUP (PVT) LTD 1001 4001 CERTIFICATION URS is a member of Register of Standards (RoS) Ltd.</small>		 <small>UKAS MANAGEMENT SYSTEMS 9527</small>						
CUSTOMER : Shams Al Madinah Building Material Tr.LLC P.O.BOX : 79667 SHJ, UAE										DATE : 02.11.2023 MTC NO. : TSI/AD -2558								
WE CERTIFY THAT THE MATERIAL ERW STEEL TUBES & PIPES HAVE BEEN MANUFACTURED ACCORDING TO ASTM A500-13 GR.A. ALL CHEMICAL AND MECHANICAL PROPERTIES ALSO CONFORMS TO ASTM A500-13 GR.A.																		
S.No.	SIZE (mm)	THICK-NESS (mm)	LENGTH (Mtr.)	KG/MTR	PIECES	TOTAL WEIGHT (MT)	BATCH NO.	HEAT NO.	CHEMICAL COMPOSITION (MAX)				MECH. PROPERTIES (MIN)			SQUARE NESS (°)	CORNER RADIUS (mm)	TWIST mm
									C %	Mn %	P %	S %	Yst (MPa)	UTS (MPa)	EL %			
SPECIFIED REQUIREMENTS									0.300	1.400	0.045	0.045	270	310	25	90±2	3T Max	—
1	50X50	2.00	6.00		100		4149/200826	714330	0.118	0.483	0.007	0.006	325	428	30	90±1	5.5/6.0	1.0

Note: Inspection Certificate Model No. EN:10204-3.1

AUTHORIZED SIGNATORY (QA/QC)

F:TSI/QC/07 Rev.01

		التمر للصناعات المعدنية Tiger Steel Industries LLC P.O.BOX: 31165, ICAD-II, ABU DHABI, U.A.E. MANUFACTURER TEST CERTIFICATE								 <small>THE URS GROUP (PVT) LTD 1001 4001 CERTIFICATION URS is a member of Register of Standards (RoS) Ltd.</small>		 <small>UKAS MANAGEMENT SYSTEMS 9527</small>						
CUSTOMER : Shams Al Madinah Building Material Tr.LLC P.O.BOX : 79667 SHJ, UAE TEL NO :- 009716 5360032										DATE : 26.04.2023 MTC NO. : TSI/AD -802								
WE CERTIFY THAT THE MATERIAL ERW STEEL TUBES & PIPES HAVE BEEN MANUFACTURED ACCORDING TO ASTM A500-13 GR.A. ALL CHEMICAL AND MECHANICAL PROPERTIES ALSO CONFORMS TO ASTM A500-13 GR.A.																		
S.No.	SIZE (mm)	THICK-NESS (mm)	LENGTH (Mtr.)	KG/MTR	PIECES	TOTAL WEIGHT (MT)	BATCH NO.	HEAT NO.	CHEMICAL COMPOSITION (MAX)				MECH. PROPERTIES (MIN)			SQUARE NESS (°)	CORNER RADIUS (mm)	TWIST mm
									C %	Mn %	P %	S %	Yst (MPa)	UTS (MPa)	EL %			
SPECIFIED REQUIREMENTS									0.300	1.400	0.045	0.045	270	310	25	90±2	3T Max	—
1	100X50	3.00	6.00	6.601	50	1.980	4042/200305	812804	0.128	0.466	0.007	0.015	324	424	36	90±1	5.5/6.0	1.0

Note: Inspection Certificate Model No. EN:10204-3.1

AUTHORIZED SIGNATORY (QA/QC)

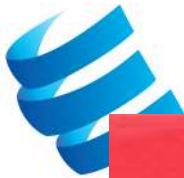
F:TSI/QC/07 Rev.00



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No.1 building material company

DANUBE BUILDING MATERIALS FZCO الدانوب لمواد البناء ش.م.خ.

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TECHNICAL DATA

KINGKONG PLYWOOD

SPECIES: COMBI POPLAR/HARDWOOD, 8-layer poplar & 3-layer Hardwood
SIZE: 2440 x 1220MM x 18MM
GLUE TYPE: WBP
FILM COLOR: BLACK

Sr. No.	Property		Unit	Standard Value	Result of Test	Conclusion
1.	Moisture rate		%	6 – 14	8.7	qualified
2.	Bonding Quality		Mpa	≥ 0.70	2.50	qualified
3.	Bending Modules of elasticity	Longitudinal	Mpa	≥ 5500	7150	qualified
		Lateral		≥ 3500	4408	
4.	Bending strength	Longitudinal	Mpa	≥ 26	59.3	qualified
		Lateral		≥ 20	31.4	
5.	Envir for test	20 °C				
6.	Test Conclusion	THE QUALITY OF PRODUCTS COMPLY WITH VARIOUS STANDARDS LIKE GB/T9846-2004 and EN314-1:2004				



Corporate Office: P.O. Box 18022, Jebel Ali, United Arab Emirates. T: +971 4 8871234, F: +971 4 8871235.

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FORMED PURSUANT TO LAW NO.2 OF 1986 AND IMPLEMENTING REGULATION NO.1 OF 1999 WITH LIMITED LIABILITY

www.aldanube.com

Toll free in UAE - 800 DANUBE



RAMCO-HICEM FIBRE CEMENT BOARDS


HICEM – Non-combustible multi-purpose fibre cement flat boards are made as per IS:14862-2000.

The Product contains cement, cellulose fibres and minerals cured under HPSC technology.




HICEM has superior attributes including Fire, Termite, Water and Moisture resistance, good dimensional stability and smooth finish.

The Product is available in various dimensions and thicknesses and can be used for interior and exterior applications. HICEM replaces plywood, particle boards and other wood based products.

PROPERTIES	UNIT	STANDARD	VALUES
Thickness	mm	-	4,6,8,9,10,12,16 and 18
Length	mm	-	595, 610, 1195, 1220,1830 and 2440
Width	mm	-	595, 610 and 1220
Physical:			
Apparent density(Dry)	Kg/m ³	IS: 14862	>1200
Compressive strength	N/mm ²	ASTM D1037	>30
Tensile strength	N/mm ²	ASTM D1037	>20-Longitudinal and >18-Transverse
Modulus of Rupture (EMC)	N/mm ²	IS: 14862	>10
Screw Withdrawal Strength	N	IS: 2380 Part XIV	>1300
Alkalinity	pH	-	8 - 9
Moisture content (EMC)	%	-	< 12
Sound Insulation:			
Acoustic Insulation	dB	IS: 9901-Part 3:1981	29
Heat Insulation:			
Thermal conductivity	W/m-K	ASTM C177 & ISO 8302	0.18
Fire Protection:			
a) Combustibility	 PSB Singapore	BS 476: Part 4:1970	Non-combustible
b) Surface spread of flame		BS 476: Part 7:1997	Class - 1
c) Ignitability		BS 476: Part 5: 1979	‘P’ - Not easily ignitable
d) Fire Propagation Index		BS 476: Part 6: 1989 + A1:2009	I = 0.7
Durability:			
Water Impermeability	-	IS:14862	Passes
Freeze thaw test	-	IS:14862	Passes
Warm Water	-	IS:14862	Passes
Soak dry	-	IS:14862	Passes
Heat rain	-	IS:14862	Passes
Biological	-	-	No fungus growth





Chemical & Metallurgical Services
(NABL ACCREDITED LABORATORY)
T.S.No.63-A, SIDCO Industrial Estate, Ekkaduthangal, Chennai - 600 032, Tamilnadu INDIA.
Phone : 91-44-2225 3863, 2225 3547 Mobile : 9445067918 Tele Fax : 91-44-2225 2944,
After Off. Hrs : 91-44-2245 1794 E-mail : rmd@sify.com / cmslab81@gmail.com

ISO 9001 : 2008
Certified Laboratory

NABL
ACCREDITED
LABORATORY

Page: 1 of 1

TEST CERTIFICATE

Test Report No.	: CMS/LTR/T-8484-Y/2014-15	Date	: 26-07-2014
Issued To	: Ramco Industries Limited Mylapore, Chennai-4		
Your Ref.	: Letter Dt: 17-07-2014.		
No. of Samples	: Physical Test.	Date of Receipt of Sample	: 17-07-2014
Nature of Test	: INo.	Date of Testing	: 18-07-2014
Enclosures	: Nil.		

TEST RESULTS


Test Method : IS: 2380, ASTM C1185.

Sample Details


**Cellulose Fiber Cement Board
(Hicem Board)**

CHARACTERISTICS	RESULTS
(1) Screw withdrawal Strength (N)	= 2538
Swelling in water	
(2) Change in thickness %	= 0.55
(3) Change in Length %	= 0.01
(4) Water Absorption %	= 34.28

****END****



R.M.D. NAYAR
(Ex - Scientist - NML -CSIR)
Technical Director



Recognised & Approved Laboratory by Steel Authority of India Ltd, RITES LTD, Airports Authority of India LTD, Defence Establishments, National & International Third Party Inspection Agencies & Many other State & Central Government Establishments.

Note:- This report relates only to the particular Sample submitted for test. Any correction not attested shall invalidate this certificate. Sample will be destroyed after 15 days from the date of issue of certificate unless instructed otherwise. Any complaints about this report should be communicated in writing within 7 days of the issue of this report. This report should not be reproduced wholly or in parts and cannot be used as evidence in a court of law and shall not be used in advertising media without prior permission in writing. Sample descriptions is not verified in all case and is given as described by the customers Samples are not drawn by us unless otherwise stated.

Website: www.cmslab.in



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<div>Gerflor</div> <div>the flooring group</div>		SENSO PREMIUM CLIC			
DESCRIPTION					
Total Thickness	EN ISO 24346	mm	4.50		
Thickness of the wearlayer	EN ISO 24340	mm	0.55		
Weight	EN ISO 23997	g/m²	7385		
Size	EN ISO 24342	mm	214 x 1239	391 x 729	242 x 1461
Number of planks /tiles and sqm per box	-	-	8 / 2.12 m²	8 / 2.28 m²	7 / 2.47 m²
CLASSIFICATION					
Norm/Product Specification	-	-	EN ISO 10582		
European Classification	EN ISO 10874	class	33 -42		
Fire Rating	EN 13 501-1	class	Bfl-s1		
Static Electrical Propensity	EN 1815	kV	< 2		
Slip Resistance Wet	DIN 51 130	class	R10		
PERFORMANCES					
Wear Resistance	EN 660.2	mm³	< 2.0		
Wear Group	-	group	T		
Type Binder content	ISO 10582	group	I		
Room Impact	NF S 31074	dB	78		
Impact sound insulation	EN ISO 717-2	dB	4		
Dimensional Stability	EN ISO 23999	%	≤ 0.15		
Residual Indentation	EN ISO 24343-1	mm	≤ 0.10		
Castor chair test	ISO 4918	-	OK		
Thermal Conductivity	EN ISO 10456	W/(m.K)	0.25		
Colour Fastness	EN 20 105 - B02	degree	≥ 6		
Surface Treatment	-	-	PUR+ MATT		
Chemical Products Resistance	EN ISO 26987		OK		
ENVIRONMENT / INDOOR AIR QUALITY					
TVOC after 28 days	ISO 16000-6	µg/ m3	< 10		
CE MARKING					
<div>CE</div>	EN 14041		<div><div></div><div></div><div></div></div>		
			<div></div>		



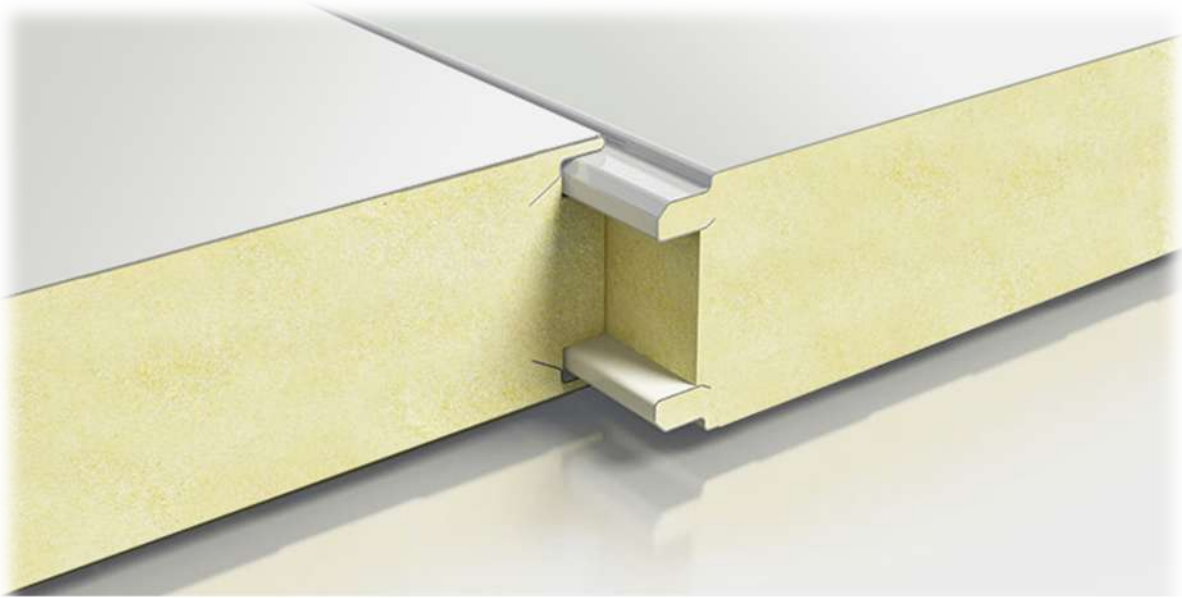
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ROOF PANEL / WATERPROOFING

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FLAT SANDWICH PANELS





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**AFITI
LICOF** Centre for Fire Testing
and Research

Association for the Promotion of Research and Fire Safety Technology

No. 5664/20-2
Page 1 of 7

Classification Report

Fire Resistance Laboratory



APPLICANT:



DANA STEEL PROCESSING INDUSTRY LLC

CLASSIFICATION OF THE FIRE RESISTANCE ACCORDING TO STANDARD EN 13501-2:2016

- Specimen:metal sandwich panels roof
 - Manufacturer: ① DANA STEEL PROCESSING INDUSTRY LLC
 - Reference: ② 750 mm ROCKWOOL DCP 35/200 SANDWICH PANELS ROOF

HEAD OFFICE & LABORATORIES Centro del Investigador, B
220100 Argentina del Rio - Madrid (Spain)

CENTRAL OFFICE & LABORATORIES S1 Abu Simbel, s/o - P.O. Box 591 de Heliopolis
1141007 Tanta (Egypt)

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☎ +34 901 700 587
✉ info@afiti.com
★ www.afiti.com



3. TEST REPORTS AND RESULTS IN SUPPORT OF THIS CLASSIFICATION

3.1.- TESTS PERFORMED

Test reports

Issuing laboratory	Applicant	Report	Test method
AFITI-LICO Camino del Estrechillo, 8 28500 – Arganda del Rey (Madrid)	DANA STEEL PROCESSING INDUSTRY LLC Factory: Unit no 11, Emirates Modern Industrial area, Umm- al-Quwain, (UAE). Head office: Suite No. 405-406, B Block, Centurion Star Building Opposite Deira City Centre, Dubai (UAE).	No.: 9664/19 Test date: 05 th -Feb-19	UNE-EN 1365-2:2016 UNE-EN 1363-1:2015
Notified Body No.: 1168			

Conditions of exposure

Temperature curve / time:	Standard
Number of exposed sides:	One (exposure on the bottom side)

Test results

	Specimen No.
	9664A
Loadbearing capacity (R)	240 minutes^(F)
Deflection	240 minutes ^(F)
Rate of deflection	240 minutes ^(F)
Integrity (E)	240 minutes^(F)
Cotton pad	240 minutes ^(F)
Gap gauges Ø 6 mm	240 minutes ^(F)
Gap gauges Ø 25 mm	240 minutes ^(F)
Sustained flames > 10 s	240 minutes ^(F)

(F): End of specimen evaluation without failure of this criterion



4. CLASSIFICATION AND FIELD OF APPLICATION

4.1. CLASSIFICATION STANDARD

This classification has been carried out in accordance with the clause 7.3.3 of the standard EN 13501-2:2016.

4.2. CLASSIFICATION

The product "50mm ROCKWOOL DCP 35/200 SANDWICH PANELS ROOF" is classified according the following combination of performance parameters and classes.

Fire Resistance Classification

RE 240

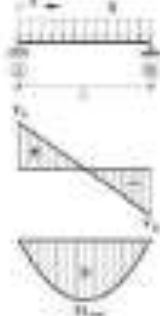
The following classifications are allowed:

RE	20	30	60	90	120	180	240
----	----	----	----	----	-----	-----	-----

4.3. FIELD OF APPLICATION

According to the chapter 13 of the Standard UNE-EN 1365-2:2016, the tested element has the following field of application:

The classification obtained is also valid for the following modifications of the characteristics of the specimen without the need for further testing.

Characteristics	Permitted modification	Reference value ⁽¹⁾
Structural building member	The maximum moment and shear forces, which when calculated on the same basis as the test load, shall not be greater than those tested.	 $R_d = R_k \cdot \frac{S_d}{S_k}$ $V_{d,lim} = V_k \cdot \left(\frac{l}{l_k} - \alpha \right)$ $M_{d,lim} = \frac{V_k^2 \cdot l_k}{2 \cdot R_k}$ $M_{d,lim} = \frac{V_k^2}{R_k}$
Inclination of roof constructions without glazing	In the 0 - 15° Range	Inclination angle 0°

(1) Reference values of the tested specimen on the basis of which the permitted modifications could be carried out.





Insulation Specifications

Thermal Conductivity Value

Amount of heat (W) passing through a material having surface of 1 M² and thickness 1 M in order to rise temperature by 1oC . Units are W/m K

K value (Insulation Value)

Thermal conductivity divided by thickness of the material [W / m² K]

U value (Total Insulation Value)

Also known as Overall Heat Transfer Coefficient. It is determined by the insulation value of the various materials forming the panel . [W / m² K] , KCal/m² h oC , BTU/ F t² h oF

On Continuous System	Density	K value
Polyurethane (PUR)	35-40 Kg/m ³	0.022 w/m ² K
Polyisocyanurate (PIR)	40-45 kg/m ³	0.022 w/m ² K
Mineral Wool / Rockwool	80-150 kg/m ³	0.04 w/m ² K
Expanded Polystyrene (EPS)	16-24 kg/m ³	0.035 w/m ² K

Please Note: Lower the K value , better is insulation capability

1. Polyurethane Properties

A Mechanical Characteristic of Foams

Density	35-40kg/m ³ (as per BSEN 1602: 1997)
Tensile Stress	150 kpa (as per BSEN 1608: 1997)
Compression Resistance	100 kpa (as per ASTM C165 : 2000)
Shear Resistance	150 kpa (as per ASTM 271/ 271M)
Fire Property	B2/ B3 as per DIN 4102-1

B Insulation Capacity

K Value - Thermal Conductivity	0.022 W/ mK
Tolerance	+ /- 0.002

QMS GROUP : PROFILE AND CLASSIFICATION

Tel: 06811-6 2117173 || Fax: 06811-6 2116040 || E-mail: info@qmsgroup.com, dtdaw@qms.com



C Water Absorption of the foam after 24 hours: 1.0 % of Volume

D Closed Cell content > 94%

E Overall Heat Transfer Coefficient (U) varies with the thickness of the panel

Polyurethane Panel U Value Chart

Core Thickness in mm	40	50	75	100
Overall Heat Transfer Coefficient "U" Value	0.535	0.420	0.290	0.210
W / M ² °C	0.535	0.420	0.290	0.210
KCAL / M ² h °C	0.451	0.361	0.247	0.181
BTU / F ² h °F	0.0092	0.074	0.050	0.037



3. Mineral Wool Features - For Fire Rated Panels

A Mechanical Properties

Density	80-120 Kg/m ³
Tensile Stress	0.040 W/mK (Average)
Compression Resistance	> 70 Kpa (as per ASTM C165 : 2000)
Fire Property	> 750 oC melting point Al as per DIN 4102-1

B Insulation Capacity

Thickness of mineral Wool (mm)	50	80	100
U Value (W / m ² K)	0.76	0.47	0.37

K value - 0.040 W / mK

Please Note Overall Heat Transfer Coefficient "U" varies with thickness of the panel

C Fire Properties

Fire Resistance	> 750 o C melting point Al as per DIN 4102
Calorific Value	<1.8 MJ/ Kg according to EN 13501
Combustibility	A1 as per EN 13501 Non combustible as per BS 476 : Part 4
Flame Spread Index	0
Smoke Development Index	0

D Water Absorption of the foam after 24 hours

DIN 4102-1 fire test		
Building Material Class		Designation
Class A	A1 (Mineral Wool Fire Rated Panels)	Non-combustible materials
	A2	
Class B	B1	Not easily flammable
	B2 (PI Panel)	Flammable
	B3 (PI Panel)	Easily flammable



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//// TERRACO®

MATERIAL SAFETY DATA SHEET

#1009

Ready Mixed, Primers, Bonding Agents and Topcoats for Surface Coatings

Version: Revised Date of Issue: 04/11/2011

1. IDENTIFICATION OF PREPARATION

Product Code and Names:

62250 - Matisse	65222 - Styroskim Resin (Pt B)	65310 - Vinylbond PVA
66210 - Weathercoat Resin	67140 - DiamondSeal	68110 - Penetrating Primer
68150 - ALC Primer	68180 - Silprime	68210 - Terrabond A
68230 - Terrabond P	68320 - Flexipave Concrete Primer	

Chemical Name:

Mixture of acrylic/ vinyl emulsions and mineral fillers.

CAS Number:

Blend

Identification of Company:

CHINA: Terraco Architectural Coatings China Co., Ltd. Tel: +86 (0)20 8759 4742 Fax: +86 (0)20 8526 8056 E-mail: sales@terraco.com.cn Web: www.terraco.com.cn Terraco Chemical (Shanghai) Co., Ltd. Tel: +86 (0)21 621020 48 / 18 Fax: +86 (0)21 625205 47 Email: sales@terraco.com.cn Web: www.terraco.com.cn EGYPT: Terraco Egypt Chemical Industries S.A.E. Tel: +20 (0)22 29184 53 / 57 / 58 Fax: +20 (0)22 29184 80 E-mail: terraco@terraco.com.eg Web: www.terraco.com.eg JORDAN: Jordan Swedish Polymers Industrial Corp. Tel: +962 (0)6 553 8751 Fax: +962 (0)6 553 6560 E-mail: terraco@nol.com.jo Web: www.terraco.jo IRELAND: Terraco Technical Centre, Ireland Tel: +353 (0) 404 66555 Fax: +353 (0) 404 66654 E-mail: technical-centre@terraco.com Web: www.terraco.com	PAKISTAN: Terraco Pakistan Pvt. Ltd. Tel: +92 (0)42 3529 70 56-8 Fax: +92 (0)42 3529 70 55 Email: terraco@terraco.pk Web: www.terraco.com ROMANIA: Terraco Romania SRL Tel: +40 (0)749 203 133 Fax: +40 (0)318 148 810 E-mail: ahaque@terraco.com Web: www.terraco.com RUSSIA: OOO Terraco Sweden Ltd, Russia Tel: +7 (0)495 9212 237 Fax: +7 (0)495 6273 881 E-mail: adm@terraco.ru Web: www.terraco.ru OOO Terraco Vostok Ltd Tel: +7 (0)4212 410563 Fax: +7 (0)4212 410591 E-mail: terracovostok@terraco.khn.ru Web: www.terraco.com SOUTH KOREA: Terraco Korea Co., Ltd Tel: +82 (0) 2 5611 551 Fax: +82 (0)2 5671 771 E-mail: terraco@terraco.co.kr Web: www.terraco.co.kr	THAILAND: Terraco Industry (Thailand) Limited Tel: +66 (0)2 946 68 56 / 58 Fax: +66 (0)2 946 68 59 E-mail: terraco@terraco.co.th Web: www.terraco.com TURKEY: Terraco Yapı Malzemeleri Sanayi Ve Ticaret AS Tel: +90 (0)222 236 0423 Fax: +90 (0)222 236 0425 E-mail: terraco@terraco.com.tr Web: www.terraco.com.tr UAE: Terraco UAE Ltd Tel: +971 (0)4 326 2699 Fax: +971 (0)4 326 2733 E-mail: terraco@terraco.ae Web: www.terraco.com UK: ADDAGRIP Tel: +44 (0)1825 761 333 Fax: +44 (0)1825 768 566 E-mail: sales@addagrip.co.uk Web: www.addagrip.co.uk / www.terraco.com VIETNAM: Terraco Vietnam Co., Ltd Tel: +84 (0)650 3 820 100 Fax: +84 (0)650 3 820101 E-mail: terraco@terraco.com.vn Web: www.terraco.com
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Amount	CAS Number
Water:	>50.0%	7732-18-5
Acrylic/Vinyl Polymer:	<45.0%	Proprietary

3. HAZARDS IDENTIFICATION

Not classified as dangerous for supply. Avoid inhalation of dust during mixing.

Potential Health Effects

Eye	Contact may cause irritation.
Skin	Prolonged contact may dry the skin resulting in irritation and dermatitis.
Inhalation	Avoid inhalation if product atomised during application, may cause respiratory tract irritation.
Ingestion	Ingestion is not considered a potential route of exposure.



//// TERRACO®

WEATHERCOAT ELASTOMERIC WATERPROOFING

OVERVIEW

Weathercoat is an economical, permanent waterproofing system for roofs and facades. The system will adhere to new and old surfaces of concrete, bitumen, and tiles. Weathercoat has long-life flexibility and is ideally suited for use in areas with extreme climatic conditions. It is applied by brush or spray and after drying can be walked upon uncovered. After application the Weathercoat system has high resistance to chemical attack, atmospheric pollution, UV light and fire.

PRODUCT GRADES/CODES

Resin	66210
Powder Grey	76110
Powder White	76115

PROPERTIES

Weathercoat is supplied as a two component, powder (cement based) and resin (acrylic based) system, to be mixed on site. Different mixing ratios will produce compounds of different degrees of flexibility, suitable for different purposes.

Weathercoat Resin

Is based on concentrated acrylic resins, highly resistant to UV light and alkalinity. The system is permanently flexible and miscible with cement and cement based materials in all proportions. Although developed as a high class waterproofing system, it is very suitable as an additive to mortars and screeds to increase their tensile, compressive and flexural strengths and reduces their water cement ratio.

Weathercoat Powder

Is based on special cements and precisely graded fillers, wetting and adhesion promoters. Properties of the final mix will vary according to the ratio of powder to resin.

PREPARATION OF SURFACE

Ensure all dirt and foreign matter is cleaned off the areas to be coated. Remove any ridges or form oil. Dusty or flaking surfaces must be cleaned thoroughly, then primed with Penetrating Primer.

APPLICATION & CLEANING OF TOOLS

Mix the components in the ratios shown in the table below. Add powder to resin and use a high speed mixer or power agitator until the mix is homogenous. If spraying add enough water to bring to the correct consistency. Apply using brush, roller or spray, leave 3 hours between coats for drying. Mixed Weathercoat must be used within 1 hour of mixing.

Mix Proportions

Uses	Waterproof Flexible		
	Coating	Slurry	Screed
Weathercoat Resin	1	1	1
Weathercoat Powder	2	3	4
Water	-	0-0.1	0.1-0.2

Tools may be cleaned with water, ensure this is done within one hour of mixing of materials.

HEALTH & SAFETY

Avoid prolonged contact with eyes and skin. For detailed information refer to relevant material safety data sheet.

PACKAGING & STORAGE

Weathercoat Resin is supplied in 5kg and 20kg pails. Weathercoat Powder is supplied in 25kg paper bags.

Store containers in a clean dry area protected from direct sunlight and extreme heat and cold. Unopened containers can be stored for 12 months. Use oldest material first.

ADVANTAGES

- Permanent waterproofing
- Abrasion resistant
- Non-toxic ideal for water tanks
- Weather resistant
- High adhesion power
- Highly flexible
- Vapour permeable
- Cement mortars adhere to it
- Bridges cracks in substrates

AREA OF USE

For waterproofing most building surfaces e.g. roofs, facades, foundations, retaining walls, swimming pools, planters, wet room floors, water tanks, etc.

//// TERRACO®

MATERIAL SAFETY DATA SHEET

#1004

Dry Powder Adhesive and Surfacing Compounds

Version: Revised Date of Issue: 04/11/2011

1. IDENTIFICATION OF PREPARATION

Product Code and Names:

75160 - Rapidfix W1	75165 - Rapidfix F1	75310 - Blockfix ALC Grey
75311 - Blockfix ALC White	75410 - Styrobond DP	75411 - Ambient Adhesive DP
75412 - Styrobond HB	75417 - Styrobond FM	75419 - Styrobond DP CONC
75420 - Styrofix	75421 - Styrofile	75422 - Styrogrout
75425 - Styrofix CONC	75430 - Tilobond Fine White	75435 - Tilobond Fine Grey
75440 - Tilobond Standard White	75445 - Tilobond Standard Grey	75510 - Maxifix White
75520 - Maxifix Grey	75522 - Maxifix CONC	75530 - MaxiGrout Grey
75530 - MaxiGrout White	76110 - Weathercoat Powder Grey	76115 - Weathercoat Powder White
76120 - Terracrete Powder - Grey	76130 - Weathercoat SP	77111 - Maximix Grey
76130 - Weathercoat SP	77111 - Maximix Grey	77114 - Handymix Putty Grey A100
77114 - Handymix Putty Grey A100	77121 - Handymix Putty Grey B100	77122 - Handymix Putty White B200
77128 - Styroskim Powder (Pt A)	77330 - Flexipave Patching Compound Powder	77610 - Sprayplaster CM
77611 - Sprayplaster CM-XT	77650 - Keybond	

Chemical Name: Mixture of calcium oxide, polymers, fillers cement, and additives

CAS Number: Blend

Identification of Company:

CHINA:

Terraco Architectural Coatings China Co., Ltd.
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//// TERRACO®

WEATHERCOAT ELASTOMERIC WATERPROOFING

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- Abrasion resistant
- Non-toxic ideal for water tanks
- Weather resistant
- High adhesion power
- Highly flexible
- Vapour permeable
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- Bridges cracks in substrates

AREA OF USE

For waterproofing most building surfaces e.g. roofs, facades, foundations, retaining walls, swimming pools, planters, wet room floors, water tanks, etc.



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ALUMINIUM / GLASS

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ALUTRADE L.L.C.

[Aluminium Trading Co.]

Product Catalog



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P.O.BOX:7368,Dubai - UAE
Tel: 04-2668091 (3 lines)
Fax: 00971-4-2691170
Email: alutrade@emirates.net.ae
Website: www.alutrademe.com





INTRODUCTION

ALUTRADE LLC was established in the year 1983. We have gained great reputation in Middle East because of our quality and sincere services. We also known in different Countries like Pakistan, Sri Lanka, India, and Kenya and are a major distributor and supplier. We provide Superior quality and value to serve the needs of business and organization in the field of construction. ALUTRADE will at all times maintain principles of integrity, honesty, and quality.

Mission Statement:

"To be the provider of choice for all building material and accessory needs"

Company Description:

ALUTRADE LLC is one of the first and leading suppliers of Aluminum accessories and building materials in the Gulf for over 26 years. Formed in 1983 and based in Dubai, UAE, ALUTRADE is led by its founder Mr. Abid Hussain and a team of professionals from the construction and engineering industry.

ALUTRADE pride's itself as the provider of high quality aluminum products and is reflective by its long history and large client base in the region (MENA). Focusing on building materials, ALUTRADE provides all the necessary products including but not limited to: aluminum doors and window locks, fly screens, fiberglass screens, tools for glass works, window glass and etc.

ALUTRADE has been the provider of choice of retailers, wholesalers and contractors in the region. ALUTRADE's brand is synonymous with excellence and the company at all times maintains the principles of integrity, honesty, and quality.

Customer Info:

ALUTRADE's current client base consists of approximately 400 international firms. Its primary focus is on the gulf countries but also has a long list of clients in East Africa and Pakistan.

Core competency:

ALUTRADE has over the last 26 years identified the key providers to meet the ever-rising demand for construction in the region. Always ahead of the curve, ALUTRADE understands the need of the growing economy and has accordingly established the necessary partnerships and network with the leading suppliers in the region. ALUTRADE's brand and reach within the gulf countries gives it's customers immediate access to world leading products, which are priced at competitive rates, at their doorstep.



Below is a list, which does not cover our entire range of products. However it gives a brief idea about our business line.

- Aluminum & Fiberglass Mosquito Netting -- Roll-up Fly Screen.
- Sliding and Hinge Doors & Windows -- Handles – Hinges – Locks – Rollers – Friction Stays – Locking Latches.
- PVC and EPDM Gaskets – Weatherstrip Brush – Self Adhesive Normal and Automatic Guard Seals – PVC Components.
- Overhead concealed and normal Door Closers – Floor Springs – Vertical Sliding Window Accessories – High Rise Window Operators.
- Stainless Steel and Galvanized Self-Tapping, Wood and Machine Screws – Anchor Bolts – Through Bolts – Center Bolts.
- Glass Tools – Freezing Bits – Cutting Blades – H.S.S. Bits – Louver Blades.
- Aluminium and Stainless Steel Pipe Handles – Patch Fittings – Spider Fittings – Show Case Fittings – Kitchen Accessories.
- Double Glazing Materials – Aluminium Spacer – Georgian Bar – Molsives (Desiccant) – Structural Glazing Tapes – Polysulphide – Butyl – Silicones – PVC Components.

We are representing some of the most reputable manufacturers worldwide are as below.

1.1 DOMUS – GREECE

Door & Window Locks

1.2 SOFI – PORTUGAL

Door Locks & Sliding Handles

1.3 SAVIO & GIESSE – ITALY

Handles, Sliding Flush Locks, Curtain Wall Handle, Hinge Window Handle, Restrictor Stays, Rollers, etc.

1.4 MAB – ITALY

Floor Springs

1.5 DORMA - GERMANY

Floor Spring and Frameless Glass Fittings



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UNITED ARAB EMIRATES Ministry of Public Works TENDERS & CONTRACTS DEP.		دولة الإمارات العربية المتحدة وزارة الأشغال العامة إدارة المناقصات والعقود
شهادة تسجيل مورد		
رقم التسجيل: 104723		الاسم التجاري: alutrade
من: ب. : 7368		المقر: دبي
الفاكس: 042691170		الهاتف: 042668091
مجال التسجيل:		
<ul style="list-style-type: none">1- Others : Hydraulic Door Closes , USAF - TAIWAN2- Others : Phifer Wire Product , Aluminium Flyscreen light kote- USA3- Others : aluminium accessories for doors and Windows , Casal - Italy		
* تجديد جورد لماركة Casal للاستبوابات الالومنيوم والابواب ايطالي. - ماركة Phifer امريكي الى Fly Screen .		
تاريخ الإصدار: 2009/08/04		تاريخ الانتهاء: 2010/08/03
رقم الإصدار وتاريخه: 2009/07/27 - 134455514283		
خدمة المشاهيد الإلكترونية		
ملاحظة: هذه الشهادة الالكترونية صادرة عن وزارة الأشغال العامة ولا تحتاج الى توقيع أي ختم رسمي.		



CASAL PRODUCTS

HINGES



MODEL NUMBER: ALU 001

Available in: white, black, silver and mill finish

Components

- 1 pc extruded aluminium male hinge
- 1 pc extruded aluminium female hinge
- 1 nylon bush
- 2 stainless steel securing plates aisi 430
- 4 M5 steel screws aisi 340
- 1 stainless steel pin, d. 7xL.76



MODEL NUMBER: ALU 002

Available in: white, black, silver and mill finish

Components

- 1 pc extruded aluminium male hinge
- 1 pc extruded aluminium female hinge
- 1 nylon bush
- 2 nylon caps
- 1 galvanized pin d. 8xL52
- 2 fixing plates inox aisi 430



MODEL NUMBER: ALU 003

Available in: white, black, silver and mill finish

Components

- 1 pc extruded aluminium male hinge
- 1 pc extruded aluminium female hinge
- 1 nylon bush
- 2 stainless steel securing plates aisi 430
- 4 M5 steel screws aisi 340
- 1 stainless steel pin, d. 7xL.76

STAC

Technical data sheet · **SIRIUS handle**
Door handle for inward and outward opening



UNE standards

The following products have been tested in accordance with the procedures described in the building hardware standards:

» UNE-EN 1906: 2015

Lever handles and knob furniture. Requirements and test methods.

» UNE-EN 1670: 2007 · AC: 2008

Corrosion resistance. Requirements and test methods.

The standard has been developed by the Technical Committee for Standardisation CTN 85: Closure of frames in building and related products. Secretary: ASEFAVE, Asociación Española de Fabricantes de Fachadas Ligeras y Ventanas.



Hardware classification

The values indicated below have been obtained in the **STAC Test Laboratory** in accordance with the procedures described in the European standard UNE-EN 1906: 2015, « Building hardware. Lever handles and knob furniture. Requirements and test methods. »

DIGIT	1	2	3	4	5	6	7	8
GRADE	2	6	-	0	0	4	0	8

digit 1	Use category	Grade 2: average frequency of use by persons paying attention and where there is some risk of misuse, e.g. Interior office doors.
digit 2	Durability	Grade 6: average frequency of use: 100.000 opening cycles (+1%).
digit 3	Mass door	- no requirements.
digit 4	Fire resistance	Grade 0: without a specific benefit.
digit 5	Safety of use	Grade 0: normal use.
digit 6	Corrosion resistance	Grade 4: 240 hours, very high corrosion resistance.
digit 7	Security	Grade 0: without a specific benefit.
digit 8	Type of operation	Grade 8: door device with handle return spring.



A05082 · A05083 · 0508029

info@stac.es ■ stac.es

References

Reference	Description	Spindle
A05082 **	SIRIUS ambidextrous single handle with zinc plated steel spindle	8 x 129 millimetres
A05083 **	Set of SIRIUS handle with zinc plated steel spindle	8 x 129 millimetres
0508029 **	SIRIUS keyhole cover plate	-

**	00	Bare metal (without finishing)
	01	Special lacquered finish 1

**	01	White lacquered finish
	02	Special lacquered finish 2

**	02	Black lacquered finish
	03	Special lacquered finish 1





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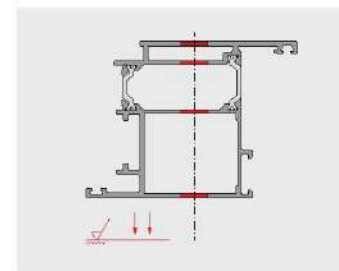
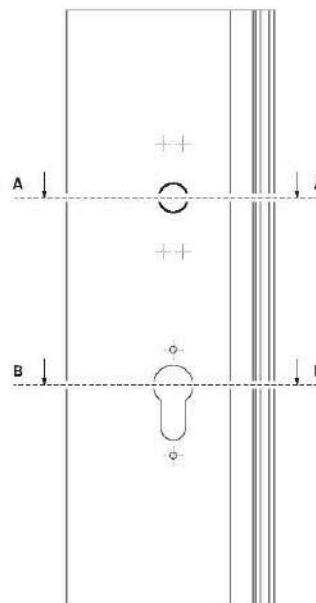
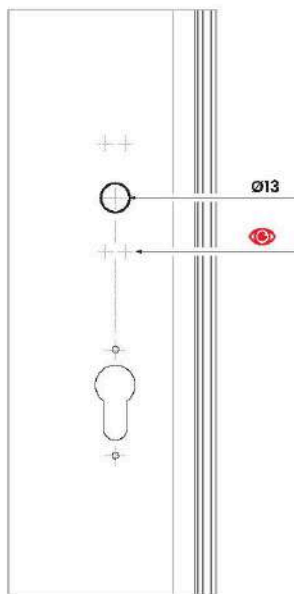
STAC

Technical data sheet - **SIRIUS handle**
Door handle for inward and outward opening

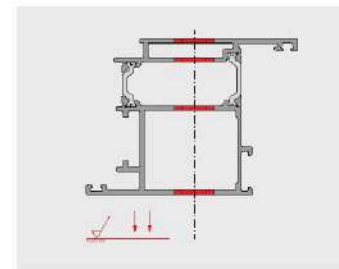


Profile machining

Considerations	SIRIUS door handles are fixed to the profile by means of self-tapping screws.	A05082	A05083
		 TORX DIN 7984 4.8 x 19 self-tapping screws 	Includes 8 pcs. Includes 4 pcs.



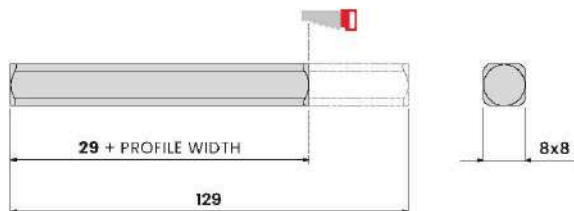
■ A-A profile section



■ B-B profile section

Transmission spindle

All references include 8 x 8 x 129 millimetres transmission spindle.



A05082 - A05083 - 0508029

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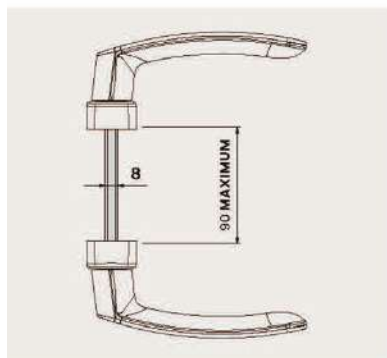
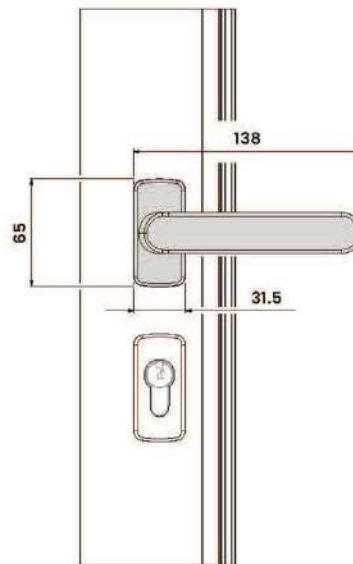
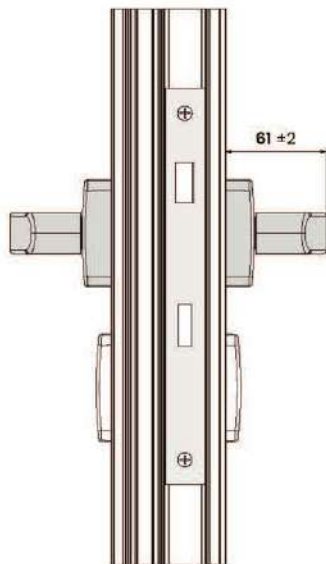
Technical data sheet - **SIRIUS handle**
Door handle for inward and outward opening



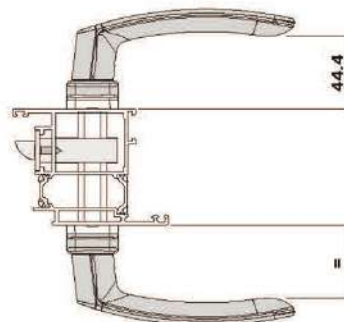
Overall dimensions

A05082 **

A05083 **



■ Maximum profile width **90 millimetres**



A05082 - A05083 - 0508029

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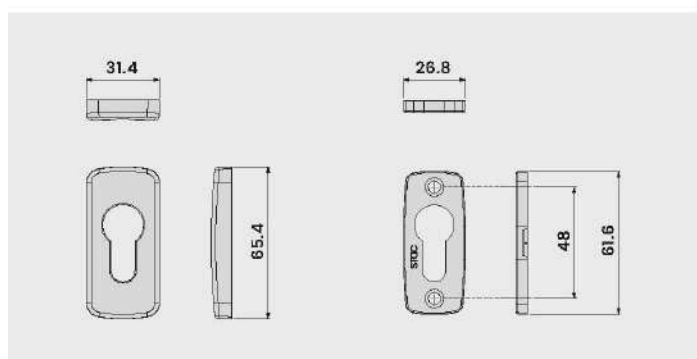
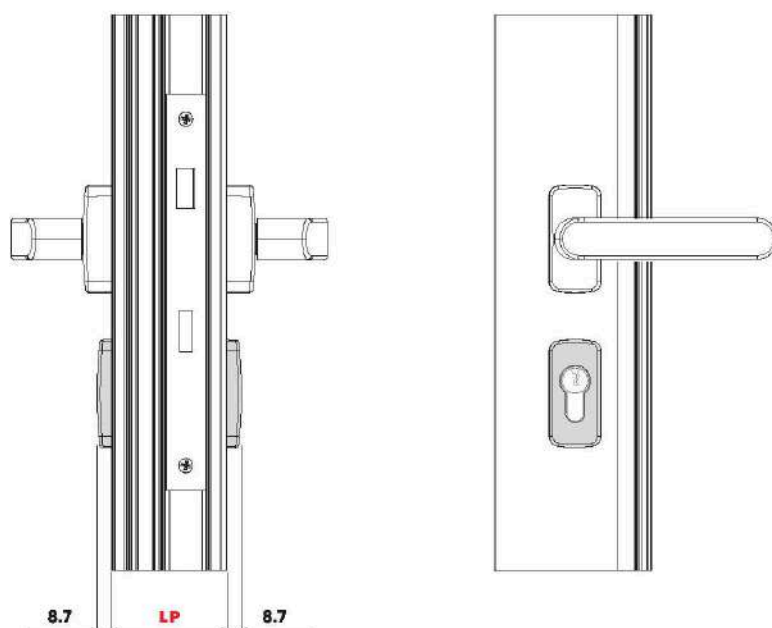
Overall dimensions

0508029 **

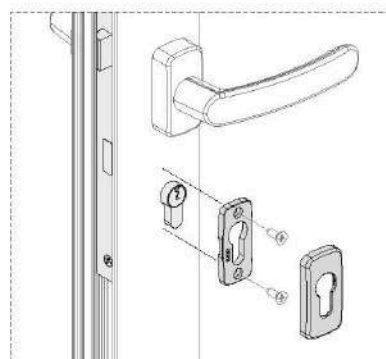
Considerations

In order to select the right cylinder you should take into account:

- » Length of door system profile **LP**
- » Keyhole cover plate depth **8.7 millimetres**



» Cylinder keyhole cover plate and counterplate for profile fixing.



⚠ Ref. 0508029 does not include the fixing screws or the European cylinder.

A05082 - A05083 - 0508029

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GENERAL TRADING

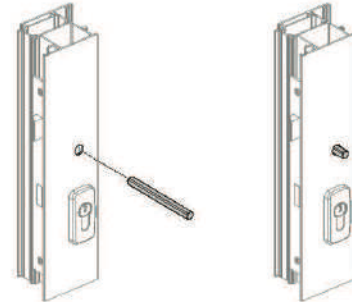
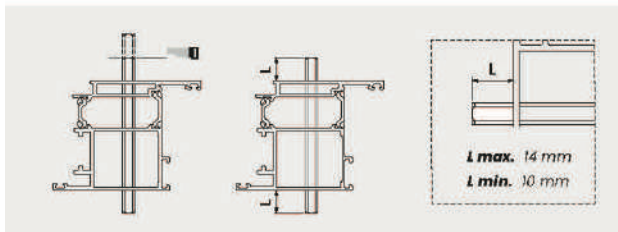
STAC

Technical data sheet - **SIRIUS handle**
Door handle for inward and outward opening

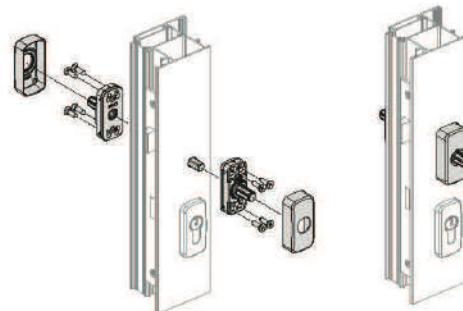
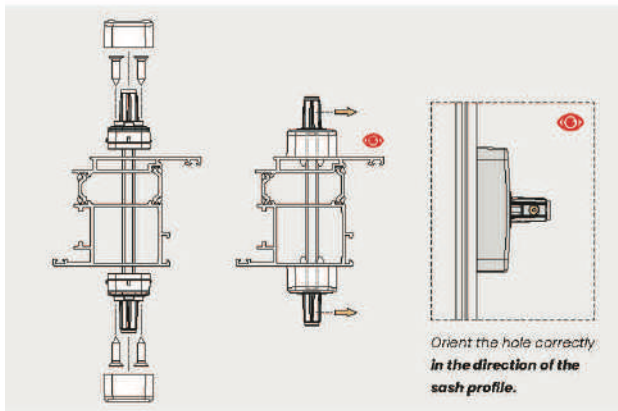


Fixing to the profile by means of self-tapping screws

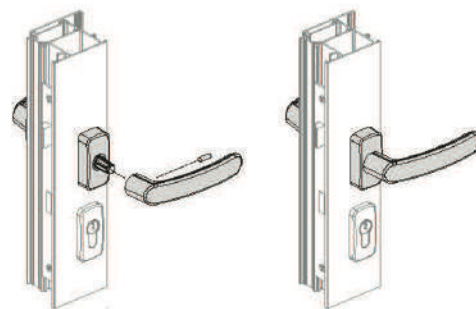
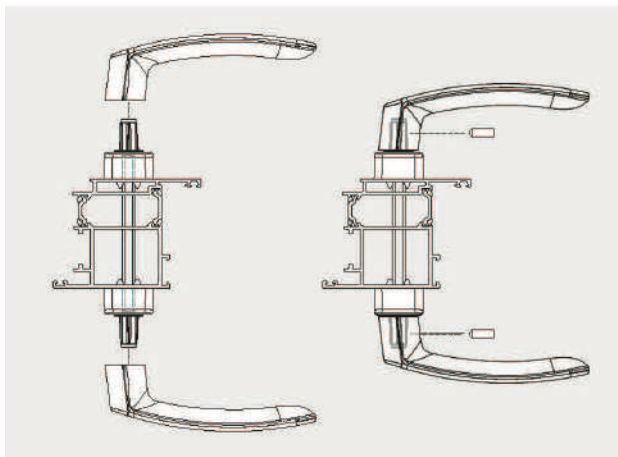
01 Installation of the transmission spindle



02 Fixing the base mechanism and the cover plate



03 Fixing of SIRIUS handles



A050R2 - A050R3 - 050R029

info@stac.es stac.es



SPECTRO
GENERAL TRADING

ISEO®

TECHNICAL FEATURES:

85 mm centre distance with European profile cylinders
Latchbolt operated by handle and key
Latchbolt and deadbolt flush with front plate
8 mm handle follower

741N series is interchangeable with the previous version 741

For metal frames (codes 741N):

- Backsets 20, 25, 30, 35 mm (real backsets 21, 26, 31, 36 mm)
- 22 mm squared front plate
- Front plate in chrome-plated steel (2,7 mm thickness) or in stainless steel (3 mm thickness)

For wooden frames (codes 200N):

- Backsets 25, 30, 35 mm (real backsets 26, 31, 36 mm)
- Front plate in brass-plated steel or in gold-painted steel (2,7 mm thickness)

KEY POINT

- Closed case on all sides. This stops door chips and shavings from getting jammed in the lock;
- 2 fixing holes, 21,5 mm (bottom) and 46 mm (top) from the handle;
- Case painted marbled grey;
- Reversible latchbolt, no tools necessary;
- 15 mm single throw.

www.iseo.com

PRODUCT

The mortise lock **741N** series with **centre distance 85**, with new features and a wider range, can be installed on metal doors or wooden frame doors with glass. It can be used with the wide range of Iseo cylinders, giving to the doors different security levels.

OPERATION

The deadbolt and the latchbolt are operated by the key.
The latchbolt is operated by the handle.

RANGE

Mechanical lateral locks, centre distance 85, with the following functions:

- Latchbolt and deadbolt (741N series - 200N series);
- Roller and deadbolt (743N series);
- Deadbolt only (745N series);
- Latchbolt only (749N series).

CERTIFICATION

EN12209

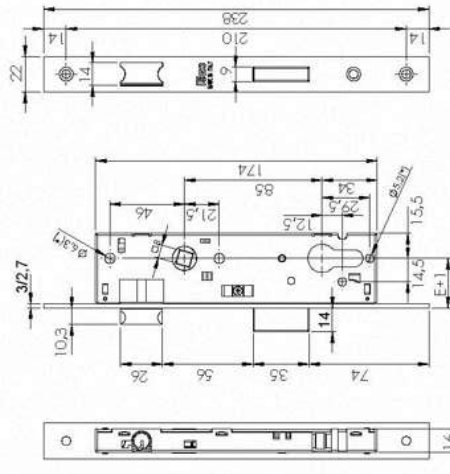
COMPATIBLE PRODUCTS

- Striking plates (please refer to ISEO general catalogue).

TEXT FOR SPECIFICATIONS:

ISEO 741N series mortise locks for framed glass doors, with 85 mm handle-cylinder centre distance, latch retractable with handle and key, and 14 mm thick latch with 10.3 mm protrusion.

741N
MORTISE LOCKS,
CENTRE DISTANCE 85





SPECTRO
GENERAL TRADING

Yale

Designed to
suit your home

Yale Door Closers



3500 Series Hard Open Arm Silver



3500 Series Parallel Arm Silver



White



Brown



Black



Gold

	3500 Series Standard Arm	3500 Series Hard Open Arm	3500 Series Parallel Arm
Colour	Silver, white, brown, black & gold	Silver, white, brown, black & gold	Silver, white, brown, black & gold
Dimensions (Height/Depth/ Length) (mm)	41 x 60 x 182	41 x 60 x 182	41 x 60 x 182
Weight (kg)	1.5	1.75	1.75
Closing speed	Variable between 180° - 15°	Variable between 180° - 15°	Variable between 180° - 15°
Latching Speed	Variable between 15° - 0°	Variable between 15° - 0°	Variable between 15° - 0°
Backcheck	N/A	N/A	N/A



3500 Series Standard Arm Silver

Yale 3500 Door Closer Series

Features

- Tested up to 500,000 cycles for closing and opening of the door closer for extreme durability
- Suitable for left or right handed doors
- Mounts on doors that are max door width 1100mm and weight 80kg
- Fire resistant
- Available in silver, white, brown, black & gold to suit your door and home

Specification

- CE marked
- Casted aluminium body
- Closing and latch speed adjustable by regulating valves



Indoor use
Suitable for indoor use on both fire and non-fire rated doors



Adjustable
You can adjust the closing and latching speed



Easy to install
Suitable to help a lot in installing on doors



Fire resistant
Suitable for fire and smoke rated doors



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GENERAL TRADING



**GUARDIAN
SUNGUARD®**
ADVANCED ARCHITECTURAL GLASS

CLEAR FLOAT GLASS

THERE'S ONLY ONE NAME YOU NEED TO KNOW: GUARDIAN.

Guardian Float Glass is manufactured throughout the world using the latest in glass-making technology. With numerous manufacturing facilities, Guardian can meet the needs of the architectural glass market with quick and reliable service.

CHARACTERISTICS

- High light transmission
- Optical clarity
- Can be further fabricated into reflective, low-E, laminated, security, insulating, heat-treated and ceramic decorated glass.

APPLICATIONS

Clear Glass: Ideal where high visibility and clarity are required.

- Windows
- Solariums
- Shelves
- Tabletops
- Skylights
- Greenhouses
- Display cases
- Picture frame glass
- Doors
- Mirrors
- Handrails
- Appliances
- Atriums
- Safety glazing
- Furniture applications





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GENERAL TRADING



INSULATION

SPECTRO
GENERAL TRADING



SPECTRO
GENERAL TRADING

FUJAIRAH ROCKWOOL FACTORY

(Subsidiary of Fujairah Building Industries P.S.C.)

FRF

مصنع الفجيرة للصوف الصخري

(تتبع الشركة المستعانة بالبناء ش.م.ع.)

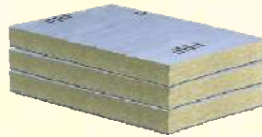
REF: FRF-TDS/0417/2019

DATE: 28 March 2019

**Fujairah Rockwool Slabs
With Aluminium Foil Facing On One Side
S2XX**

Thickness : 50 mm

Density : 50 kg/m³



Fujairah Rockwool slabs conforming to ASTM C-612 and equivalent BS-3958 Part 5 are designed for thermal and acoustic insulation of flat or slightly curved surfaces. These slabs are produced from long, non-combustible resin bonded fibers. They are easy to cut, fit and handle. The robust fibers in the slabs combine high levels of thermal efficiency and acoustic absorption.

Applications

Designed for a wide range of applications at both high and low service temperatures. It can be used on both flat and slightly curved surfaces for thermal and acoustic insulation.

They are also suitable for thermal insulation of ducts, tanks, large vessels, cavity walls, curtain walls and sandwich panels.

Standard Delivery

Available in standard width of 600 mm and length of 1200 mm.

Other sizes are available upon request.

Service Temperature

Plain Rockwool Insulation has a service temperature of 780°C when tested in accordance with DIN 52271 for 80mm thickness and 100 kg/m³ density. However there is possible deviation for lower densities and with facings.

The user is advised that it is possible that the maximum use temperature of facings and adhesives is lower than the maximum use temperature of the insulation. The user shall ensure that sufficient thickness shall be installed so none of these accessory items (facings and adhesives) are exposed to temperatures above their maximum use temperature.



Certificate Number: 1187 Certificate Number: 2326 Certificate Number: 1115

ص.ب: ٢١١ - الفجيرة - الإمارات العربية المتحدة، تليفون: +٩٧١٩٢٢٢٢٩٧ - فاكس: +٩٧١٩٢٢٢٢٥٧٣
P.O. Box:211, Fujairah, United Arab Emirates, Tel.: 00971-9-2222297, Fax: 00971-9-2222573
E-mail: frf@frf.ae, Website: http://www.frf.ae



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GENERAL TRADING



United Arab Emirates
Ministry of Interior
General Directorate of Civil Defense
General Department of Civil Defense Abu Dhabi

2013113360854 :

2022 :

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2012 (24)

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29/09/2022

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TECHNICAL DATA SHEET



ACETIC SILICONE General Purpose (SL212)

PATTEX_ACETIC SILICONE_SL212_GCC_0213

1

CHARACTERISTICS

- Excellent weatherability
- Fast curing
- Anti fungus

SCOPE OF USE

ACETIC SILICONE (General Purpose SL212) is a one component, ready-to-use silicone sealant for general purpose sealing applications (indoor and outdoor). It is suitable for bonding and repairing properties of a wide variety of joints, it cures at room temperature and in the presence of air moisture to form a flexible and resistant joint.

APPLICATION

Surface preparation:

Surfaces must be dry, clean of dust and free of any substances which may impair adhesion.

Application procedure:

Cut off tip of spout at 45° angle, load cartridge into gun and apply steadily.

Cleaning:

Clean residue and tools with cloth.

PACKAGING INFORMATION

Packaging Size	Packaging Type	Pieces/ Carton	IDH	Country of Origin
280 ml	Cartridge	24	1719790	Germany
280 ml	Cartridge	24	1719466	Germany
280 ml	Cartridge	24	1719465	Germany

*Colours available (in respective order): Transparent, Black & White



STORAGE & SHELF LIFE

This product should be stored in its original packaging in a cool, dry place, protected from frost, sparks, flames and direct sunlight. Keep away from children. Shelf life: 12 months from manufacturing date.

HEALTH & SAFETY

Irritating to the eyes and skin. Repeated exposure may cause skin dryness or cracking. Vapors may cause drowsiness and dizziness. Keep out of reach of children. Keep container in a well-ventilated place. Keep away from sources of ignition - No smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If swallowed, seek medical advice immediately and show this container or label.



HVAC



18000 BTUs Split Air Conditioners – eJET Series

SGS195GE

SPECIFICATIONS

Rated T1 Capacity (Btu/h)

18000

Compressor Type

ROTARY

Climate Type / Air Flow

T3/550/650/780

Refrigerant Type

R410a

Voltage (V, Hz, Ph)

220-240V, 1Ph, 50Hz

Dimension (Indoor-Prod/Pack WxDxH mm)

965x215x319 / 1045x305x405

Dimension (Outdoor-Prod/Pack WxDxH mm)

845x363x702 / 965x395x765

Weight (Indoor) (Net /Gross Kg)

11.5/15.0

Weight (Outdoor) (Net /Gross Kg)



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WALLS

internal & External

SPECTRO
GENERAL TRADING



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ACP TECHNICAL SPECIFICATION			
1	ACP Thickness	mm	4±0.2
2	Aluminium Skin thickness	mm	0.21
3	Core thickness	mm	3.6
4	Weight	kg/m ²	4.5±5%
MECHANICAL PROPERTIES AL COIL			
5	Tensile Strength	N/mm ²	165
6	Yield Strength	N/mm ²	155
7	Alloy		1100-H-16
9	Peel off strength	N/mm	>6
10	Elongation	%	>3
11	Linear Thermal Expansion	mm/m @100°C	2.4
CORE PROPERTIES			
12	Core	virgin or recycled?	Recycled
13	Density	G/cc	1
14	Color	As per PO	--
SURFACE FINISH PROPERTIES			
15	Type / finish (top side)	PE/HOPE/PVDF	PE
16	Dry film Thickness	coat system	25 microns
17	Gloss Type	%	As per customer req.
18	Pencil hardness	H pass
19	Salt Spray Test	Paint performance	Pass for 3000 Hrs
ACOUSTICAL PROPERTIES			
20	Sound absorption factor	0.15
21	Sound transmission Loss (Rw)	Db	30
THERMAL PROPERTIES			
22	Temperature resistance	°C	~50.....+60



RAMCO-HICEM FIBRE CEMENT BOARDS


HICEM – Non-combustible multi-purpose fibre cement flat boards are made as per IS:14862-2000.

The Product contains cement,cellulose fibres and minerals cured under HPSC technology.



HICEM has superior attributes including Fire,Termite,Water and Moisture resistance,good dimensional stability and smooth finish.

The Product is available in various dimensions and thicknesses and can be used for interior and exterior applications. HICEM replaces plywood,particle boards and other wood based products.

PROPERTIES	UNIT	STANDARD	VALUES
Thickness	mm	-	4,6,8,9,10,12,16 and 18
Length	mm	-	595, 610, 1195, 1220,1830 and 2440
Width	mm	-	595, 610 and 1220
Physical:			
Apparent density(Dry)	Kg/m³	IS: 14862	>1200
Compressive strength	N/mm²	ASTM D1037	>30
Tensile strength	N/mm²	ASTM D1037	>20-Longitudinal and >18-Transverse
Modulus of Rupture (EMC)	N/mm²	IS: 14862	>10
Screw Withdrawal Strength	N	IS: 2380 Part XIV	>1300
Alkalinity	pH	-	8 - 9
Moisture content (EMC)	%		< 12
Sound Insulation:			
Acoustic Insulation	dB	IS: 9901-Part 3:1981	29
Heat Insulation:			
Thermal conductivity	W/m-K	ASTM C177 & ISO 8302	0.18
Fire Protection:			
a) Combustibility		BS 476: Part 4:1970	Non-combustible
b) Surface spread of flame		BS 476: Part 7:1997	Class - 1
c) Ignitability		BS 476: Part 5: 1979	'P' - Not easily ignitable
d) Fire Propagation Index		BS 476: Part 6: 1989 + A1:2009	I = 0.7
Durability:			
Water Impermeability	-	IS:14862	Passes
Freeze thaw test	-	IS:14862	Passes
Warm Water	-	IS:14862	Passes
Soak dry	-	IS:14862	Passes
Heat rain	-	IS:14862	Passes
Biological	-	-	No fungus growth



(NABL ACCREDITED LABORATORY)

T.S.No.63-A, SIDCO Industrial Estate, Ekkaduthangal, Chennai - 600 032, Tamilnadu INDIA.
Phone : 91-44-2225 3863, 2225 3547 Mobile : 9445067918 Tele Fax : 91-44-2225 2944.
After Off. Hrs : 91-44-2245 1794 E-mail : rmd@sify.com / cmslab81@gmail.com



Page: 1 of 1

TEST CERTIFICATE

Test Report No.	: CMS/LTR/T-8484-Y/2014-15	Date	: 26-07-2014
Issued To	: Ramco Industries Limited Mylapore, Chennai-4		
Your Ref.	: Letter Dt: 17-07-2014.		
No. of Samples	: Physical Test.	Date of Receipt of Sample	: 17-07-2014
Nature of Test	: 1No.	Date of Testing	: 18-07-2014
Enclosures	: Nil.		

TEST RESULTS

Test Method : IS: 2380, ASTM C1185.

Sample Details

Cellulose Fiber Cement Board (Hicem Board)

CHARACTERISTICS	RESULTS
(1) Screw withdrawal Strength (N)	= 2538
Swelling in water	
(2) Change in thickness %	= 0.55
(3) Change in Length %	= 0.01
(4) Water Absorption %	= 34.28

*****END*****


R.M.D. NAYAR
(Ex - Scientist - NML -CSIR)
Technical Director



Recognised & Approved Laboratory by Steel Authority of India Ltd. RITES LTD, Airports Authority of INDIA LTD. Defence Establishments, National & International Third Party Inspection Agencies & Many other State & Central Government Establishments.

Note:- This report relates only to the particular Sample submitted for test. Any correction not attested shall invalidate this certificate. Sample will be destroyed after 15 days from the date of issue of certificate unless instructed otherwise. Any complaints about this report should be communicated in writing within 7 days of the issue of this report. This report should not be reproduced wholly or in parts and cannot be used as evidence in a court of law and shall not be used in advertising media without prior permission in writing. Sample descriptions is not verified in all case and is given as described by the customers. Samples are not drawn by us unless otherwise stated.

Website: www.cmslab.in



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GENERAL TRADING



EMIRATES PANEL PLASTIC INDUSTRIES L.L.C

EPM POLYCARBONATE SOLID SHEETS



Properties of EPM Solid polycarbonate Sheets:

- 1- Very high impact resistance.
- 2- Up to 89% light transmission.
- 3- Thermal insulator
- 4- Flame resistance.
- 5- UV protection.
- 6- Sound insulation.
- 7- Excellent thermoforming capabilities.
- 8- Outstanding weatherability.
- 9- Easy fabrication.
- 10- Excellent resistance to dilute acids and mineral oils.

Application of EPM Solid Polycarbonate sheets:

- 1- Polycarbonate visor.
- 2- Police shield.
- 3- Skylight and roofing.
- 4- Swimming pool enclosure and covers.
- 5- Carport kits.
- 6- Green house.
- 7- Signs and graphics.
- 8- Building windows & doors.
- 9- Lightning & electric components, fixtures.

Product Data Sheet

General properties	Method	unit	value
Density	ISO 1183-1	gr/cm ³	1.2
Flammability		mm	1.48
water absorption saturation	ISO 62	%	0.45
water at 23 C			
water absorption equilibrium	ISO 62	%	0.12
23 c, 50% relative humidity			
Forming temperature		C	180-210
MECHANICAL PROPERTIES			
Tensile modulus	ISO 527-1,-2	Mpa	2400
Yield stress	ISO 527-1,-2	Mpa	60
Yield strain	ISO 527-1,-2	%	6.3
Nominal strain at break	ISO 527-1,-2	%	50
Stress at break	ISO 527-1,-2	Mpa	70
Strain at break	ISO 527-1,-2	%	125
Flexural strength	ISO 527-1,-3	Mpa	100
Taber Abrasion		mg/1000 cycles	10
Impact Resistance		joules	72
Charpy impact strength	ISO 179-1	kJ/m ²	No Break
THERMAL PROPERTIES			
Vicat softening temperature	ISO 306	C	148
Thermal conductivity 23 c	ISO 8302	W/(M.K)	0.2
Coefficient of linear thermal	ISO 11359-1	m/m C	70x10 ⁻⁵
Expansion, parallel 23 to 55 c			
Shrinkage		%	< 3
Temperature of deflection	ISO 75-1,-2	C	132
Under load 1.80 Mpa			
Temperature of deflection	ISO 75-1,-2	C	140
Under load 0.45 Mpa			
ELECTRIC PROPERTIES			
Volume resistivity	IEC 60093	Ohm.cm	1.00E+15
Electric strength	IEC 60243-1	kv/mm	30
Surface resistivity	IEC 60093	Ohm	1.00E+16
Dissipation factor - 100 Hz	IEC 60250	10. -4	5
Light transmittance		%	85

Thickness of solid polycarbonate sheets	
Thickness in mm	overall thickness tolerance (mm)
1.5	±0.15
2	±0.2
3	±0.3
4	±0.4
5	±0.5
6	±0.3
7	±0.35
8	±0.4
9	±0.45
10	±0.5
12	±0.6

Size of EPM Solid Polycarbonate sheets		
Max. Width (mm)	Standard Length (mm)	Width & Length Tolerance
2010	3000	-0.1 % ; +0.3 %

Sheet.

*Depends on customer request

thickness: 1 - 12 mm

Length: unlimited but normally 3 meters is widely in use

width: for thickness of 1.2 and below 2mm up to 1.22 meters,
for thickness of 2 - 12mm up to 2 meters

Roll.

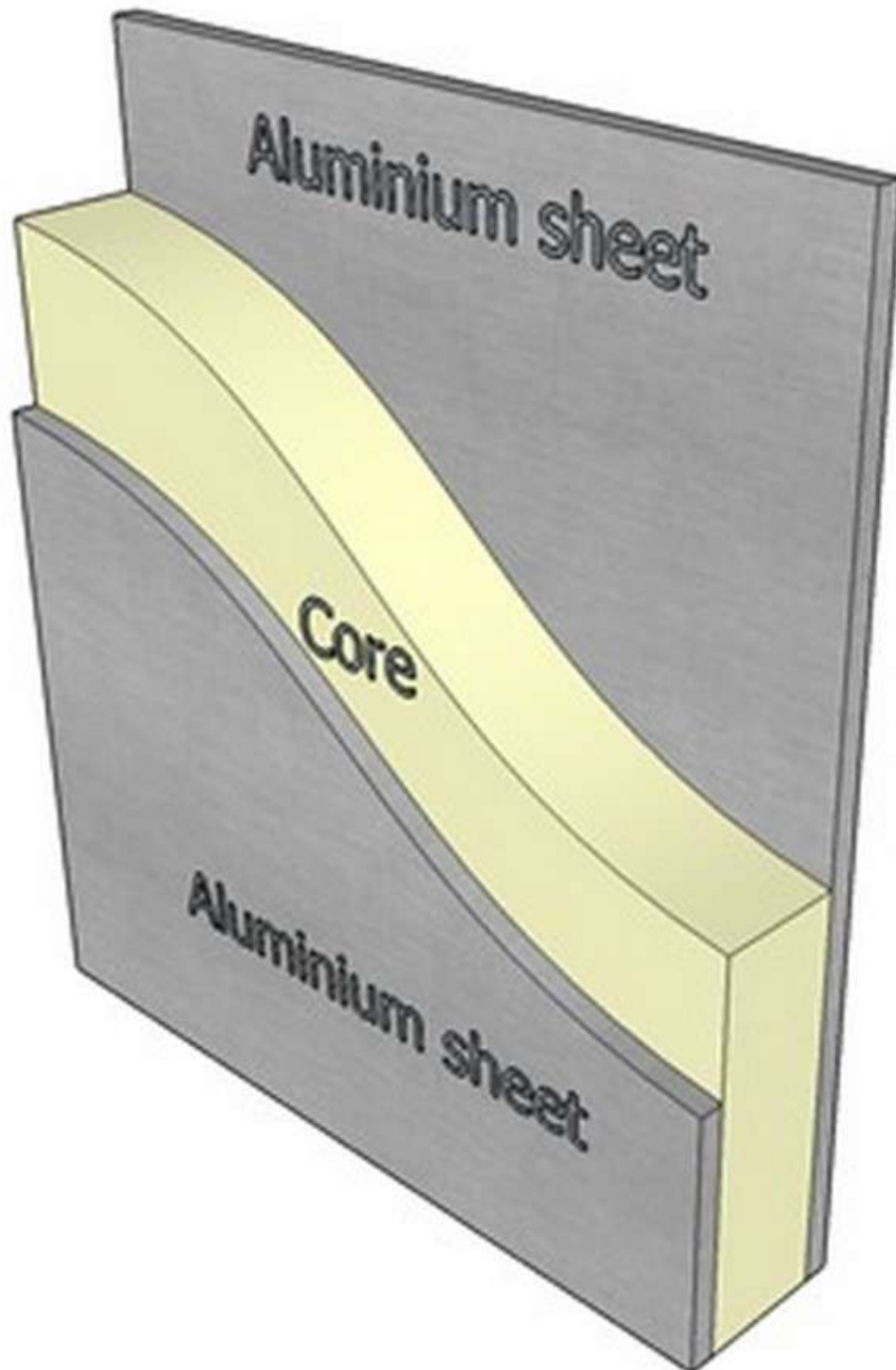
Thickness: 1.2 - 4 mm

Length: normally 30 meters is widely in use

Width: up to 1.22 meters



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GENERAL TRADING

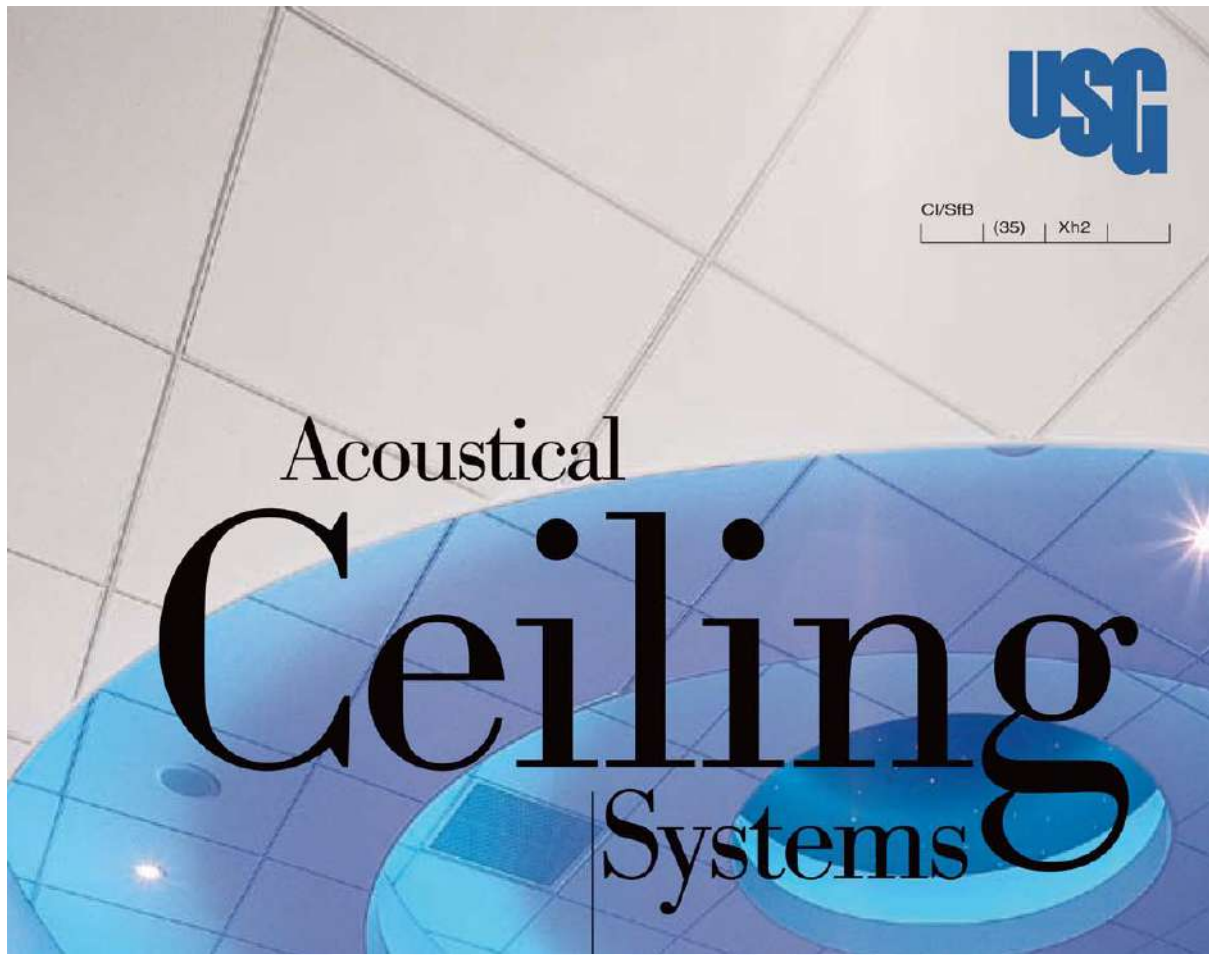




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FALSE CEILING

www.espectro-me.com



GENERAL TRADING

Product Name	Type	Humidity Resistance Max % RH / °C	Termi / resistance Ratio or °C/W	Acoustical Performance			
				MTC	MR	Defn	
Sonstone	6	H	55/40	0.38	0.75	(1.7) 2041	3545
Ceramic Refur	7	FC	160/40	0.22	0.50	(1.50)	4149
Chen Stone	8	H	90/22	0.25	0.15	(1.15)	3549
Decorative Mason	13	FC	90/22	0.05	0.60	(0.55 & 1)	3288
Refur / Terrazoles	11	FC	90/22	0.25	0.70	(0.70)	3149
Better	15	R	70/23	0.05	0.55	(0.50) 49	3449



Acoustical ceilings absorb and/or attenuate sound. The two main acoustical performance ratings indicate panel performance:

α_w , NRC - defines the average sound absorption of a ceiling system

Dn_{cw} - defines the average room to room sound attenuation of a ceiling system.

*Sound absorption describes the reduction of noise within a room. Acoustical ceiling tiles absorb sound energy and serve to control acoustic reverberation time. Different tile patterns provide different levels of sound absorption.

Sound attenuation refers to the attenuation of noise passing into a room from outside, such as room-to-room noise or noise from above ceiling services. The test data in dB (uncw) for each test gives guidance on the sound insulation, but it should be seen in the context of the overall room construction.



Excess heat, humidity and fluctuating climatic conditions can shorten the life of a ceiling system. The connection of temperature to relative humidity (RH) is crucial in determining the best product for any application. USG's specially formulated ceiling panels resist high heat and humidity without visible sag and are available in a range of performance options up to 100% RH@40°C.



 Life safety and protection of property are important considerations in the design and specification of acoustical ceiling systems. Specially formulated Fireco (FV) rated ceiling panels are a crucial component of USG's tested fire protection systems. Specification and installation must be in accordance with the selected fire test description of the system.



Fire protection: Structural fire protection BS 476 parts 2 and 23.

from panels are a

Life safety and protection of property are important considerations in the design and specification of acoustical ceiling systems. Specially formulated fire retardant and fireproof materials are available. The fire-rated (or fireproof) component of USG's tested and approved fire-rated ceiling products is the structural element of a suspended ceiling system. The fire-rated ceiling products are designed to provide protection in the event of a fire, the ceiling system is not a fireproof enclosure.

Fire protection
Structure fire protection ISG 41% parts 21 and 22.

Suspended ceilings can be used to provide protection in the structural element of a building in the event of a fire. The ceiling system is not a fireproof enclosure.

USG offers a lifetime (30 year) limited warranty on ultra high performance tiles and a 15 year limited warranty on high performance tiles which are installed in USG's DDM Brand suspension grids. Refer to USG Technical Services Department for details.

USG ceiling systems must be installed and maintained in accordance with current USG written instructions and industry best practice as defined by BS 6290.



This is the new harmonised European standard, effective from 1st January 2005, which provides information for parties responsible for designing, manufacturing and specifying/ selecting suspended ceilings used for interior applications. It covers suspended ceilings sold as kits, individual components and membrane components and describes test methods and methods of assessment as well as provisions for the evaluation of conformity of the products to the requirements of this standard.

[illegible]



SPECTRO
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Sonatone



Description

- Accessible acoustical ceiling system with fine textured laminated panels.

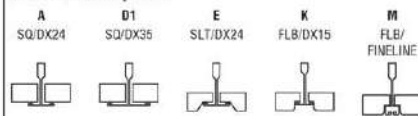
Features and Benefits

- Durable laminated construction
- High sound absorption, for effective reduction of unwanted noise
- Mid range sound attenuation, ideal for general commercial construction
- High light reflectance, to improve lighting efficiency and reduce energy costs. Ideal for use with uplighters
- Air filtration resistant, panels stay cleaner longer, ideal for applications with 'return air plenums'
- Cleanroom classified, Federal Spec. 209E class 10,000 option (Ref. USG)
- Scrub resistant. Dirt marks are easy to remove
- Scuff and scratch resistant, for longer life and lower maintenance costs
- Ultra high humidity resistant, ensures durability in standard or extreme environmental conditions. May be installed early in the building program
- Fire resistant system options, for life safety and protection of property
- Durable fully painted and sealed edge options (SLT, FL), ideal for frequently accessed ceilings

Applications

- Education
- Healthcare
- Hotels
- Leisure
- Office
- Retail
- Sport

DONN® Grid Options



Pattern	Type *	Edge	Size (mm)	Item No.	Acoustical performance			LR	Colour	Grid option
					NRC	α_W	DncW			
Sonatone	R	SQ	600 x 600 x 19	ME 86185	0.75	0.70(MH)	38dB	92%	White	A,D1
Sonatone	R	SQ	1200 x 600 x 19	ME 88185	0.75	0.70(MH)	38dB	92%	White	A,D1
Sonatone	R	SLT	600 x 600 x 19	ME 86785	0.75	0.70(MH)	38dB	92%	White	E
Sonatone	R	FLB	600 x 600 x 19	ME 86985	0.75	0.70(MH)	38dB	92%	White	K,M

* Type: R: Regular

Sound Absorption	Hz	125	250	500	1000	2000	4000
	α_S	0.67	0.39	0.67	0.97	1.02	1.04

Warranty

10 year panel or 30 year system warranty, ref USG.

Composition

Contains recycled material, no asbestos. Tile is a patented process blend of NC mineral fibre, inorganic fillers and speciality hydrophobic organic binders. Pre-finished with painted glass tissue laminate. Material safety data sheet available on request.

Humidity Resistance

Maximum 95% RH / 40°C
Class C (BS EN 13964)

Fire reaction

BS 476 Pt 6/7 Class 1/0
A2-s1, d0 (BS EN 13964)

Air filtration resistance

>8000 Pa.s/m per ASTM 522C
Classified as low fibre emission when tested to Nord Test method NT Build 347 at the Danish Technological Institute.

Scrub resistance

Scrub resistant, exceeds 5000 cycles per ASTM D 2486-89.

Scratch resistance

Scratch resistant - no visible damage by metal shim up to 20mm using surface scratch test.

Thermal resistance

R 0.38 m² °C/W

Release of asbestos

No content (BS EN 13964)

Release of formaldehyde

Class E1 (BS EN 13964)

Weight

5.7 kg/m²

Maintenance

Easily cleaned using soft brush, vacuum or damp sponge.

Indoor Environmental Quality (IEQ)

This product has particular performance characteristics that benefit designers striving for Indoor Environmental Quality.



BS EN 13964:2004 Suspended Ceilings

is the new harmonised European standard, effective from 1st January 2005, which provides information for parties responsible for designing, manufacturing and specifying/ selecting suspended ceilings used for interior applications. It covers suspended ceilings sold as kits, individual components & membrane components and describes test methods & methods of assessment as well as provisions for the evaluation of conformity of the products to the requirements of this standard.

This product has been subjected to factory production controls and additional testing according to a fixed test plan and the recognised testing office Warrington Certification Ltd, Holmesfield Road, Warrington, WA1 2DS, UK has performed all tests of the relevant properties of the product and provided an EC certificate of Conformity, number: 1121 - CPD - BC0030



Installation and maintenance

System performance

USG ceiling systems should be installed in accordance with recommendations described within this catalogue and the DONN grid application guide. System performance following any substitution of materials or compromises in assembly cannot be guaranteed and may result in failure under critical conditions. Reference should be made to BS 8290 1991 Suspended Ceilings parts 1, 2 and 3, and the European Standard for Suspended Ceilings BS EN 13964:2004. COSHH data sheets are available on request.

Site storage and handling

Storage on site should be as short as possible with environmental conditions as near as possible to those specified for occupancy (see below). Any storage area should be secure and fully protected from the weather with cartons stored on a clean, dry base. Cartons of material should never be rolled, dropped or slid, and under no circumstances used as a workbase or substitute for ladders, scaffolding, etc.

Pattern direction

With directional face patterns, such as Glastone, Sandrift and Frost, the orientation of pattern relative to light sources should be carefully considered for desired visual effect, and specified and installed accordingly. Variations in colour and fissure size in Glastone, Sandrift and Frost ceiling tiles will be of little consequence within a single production batch. However, minor variations can occur from time to time, and projects should be planned so that all material for continuous ceiling space is ordered and delivered from the same production batch. USG tiles are marked with a directional arrow on the back and should always be installed with this in alignment to ensure total consistency of pattern and paint shade in a production batch.

Overlaid material

Wherever possible overlaid material, such as insulation, should not be laid directly on the back

of the ceiling membrane, as this will compromise the fire resistant properties of the ceilings. In normal conditions (BS 8290), overlaid material should not exceed 3.6kg/m² weight. For high humidity environments, overlaid installation shall be limited to 1.2 kg/m².

Installation/environmental conditions

For applications with normal controlled environmental conditions, products with 70% RH/29°C or better are suitable.

Installation should only take place under ambient conditions after residual moisture from concrete and plaster has dissipated.

The recommended relative humidity should not exceed 70% RH within a temperature range 65-85°F, 18-29°C for installation and occupancy.

Once ceiling installation has commenced, it is essential that RH% and temperature be maintained at acceptable levels by heating the building if necessary. Dry heating should be employed and paraffin or gas heaters avoided. These recommendations should still be applied between completion of contract and the occupation of the building. Unoccupied buildings with uncontrolled atmospheres may have a wide temperature range during a 24 hour period which could lead to an unacceptable change in dimension stability of the ceiling panels, causing excessive sag.

For applications with intermittent heating and cooling systems, products with 90%RH/32°C or better are recommended. (See Technical Performance Selector, pages 4-5.)

For applications with uncontrolled environmental conditions, natural ventilation systems or in humid areas such as washrooms, kitchens or wet process areas, products with 95-99%RH/40°C or better are recommended. (See Technical Performance Selector, page 4-5.)

Ceramic Radar ceiling panels perform especially well in areas such as swimming pools, where the ceiling may be subject to unusually high levels of humidity up to 100% RH and chemical attack. They should be installed with USG DONN Corrosion Protected ceiling grid and appropriate hangers to resist corrosion.

All USG tiles should be protected from sustained direct contact with water.

Maintenance and cleaning

General cleaning of dust and loose dirt may be easily achieved using a soft brush or vacuum cleaner. Soiled panels can be cleaned with an art gum eraser or dampened cloth or sponge containing as little water as possible.

Clean Room tiles can be wet wiped on a regular basis without damage.

Panels should never be soaked or immersed in water.

Cleaning can also be carried out by specialist contractors using proprietary methods and chemicals. It is strongly recommended that a trial area be cleaned to ensure that there is no detrimental effect on the ceiling panel or grid.

Re-decoration

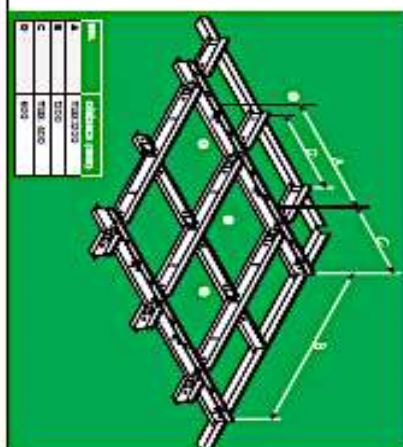
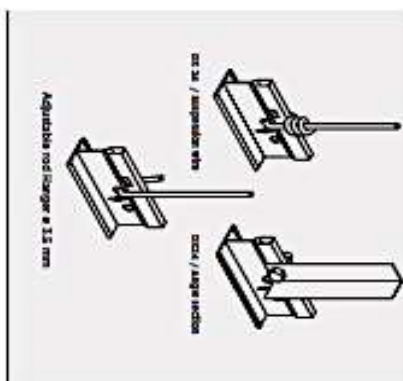
It should be noted that a new paint finish may compromise the Surface Spread of Flame classification and acoustic absorption for that panel.

Please consult the USG Technical Services Department for expert advice and recommendations.

Custom products

In addition to a wide standard range, USG can satisfy specifiers' needs for non-standard, specialised ceilings. Please talk to your local USG representative to arrange production of your specific ideas.

**DOWN[®] DX24
HEAVY DUTY - STANDARD**



Materials

At US2, several 4K suspension systems have a body and cap made of hot-dip galvanized steel. To ensure that the cap remains attractive and rust-free for long-term manufacturing, weblan uses an exclusive hot-dip coating process that outperforms the competition in paint adhesion and corrosion resistance, as proven by industry-standard salt spray tests conducted by an independent laboratory. For our extreme environments, we offer our grid systems with hot-dipped galvanized steel body and painted aluminum cap for additional corrosion and humidity resistance.

Product Information

[illegible]

Quantity

Linear meter required per square meter

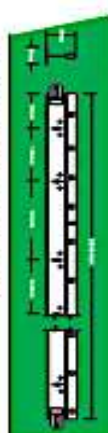
- (V) Mean free centers)
eg. if M1 at 1000nm centers $\frac{1}{12} = 0.0833 \text{ M/m}^2$

Note: These calculations do not allow for wastage, damage or irregularities but are intended as an informative guideline to assist with the calculation of product required for a given area (m²).

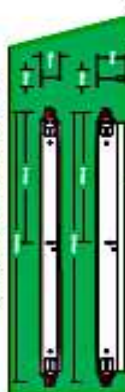
System characteristics

- Expanded 34mm system
- The most widely used grid system in the world
- Cells, fast and simple to mount & install accurately
- Maximum economy and design simplicity
- Comes flat with over-size metal trawling and grooves
- Physically flattened box with no exposed steel edges
- Patented CLONC®/BLT-FAST™ clip design demountable without tools
- Compatible with square edge and SLT edge cooling fans
- Audible Click means you know fans are connected
- Exceeded load compliance specifications as per AS/NZS CCS5
- Available in metric and imperial size

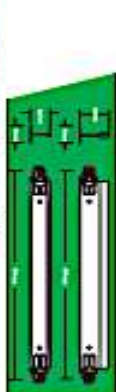
Main Journal: 10016004



Long cross the rainbow / rainbow



Sheet Count The DOWDOWND / DOK DOWN

Maximum allowed weight of tiles per m² of ceiling[illegible]

Specification DOWN® EX24-H

Ord metal D300Y, A500, second hand system, not dipped galvanized steel 1" section with pin pointed scuffing. Tails with 34mm. To suit variable module size, most typically 600 x 600mm and 1200 x 600mm. Main runners at 24mm. End D3120014 shall be internally serrated at 320mm centres and suspended from the structure or spilt using pin pointed scuffing. 2mm diameter 1405 steel wire hangers, at typically 1000mm centres. 170kg/m2 shall be no more than 400mm from the structure. Main runners stowed and on by means of the integral spile. Spile connectors shall be suspended within 100mm with a single, spile shall be staggered across the ceiling area.

Cross (seed): DCO00mm cross (seed): 2B x 24mm and DK DCO041D and 2E x 24mm and DCO0001 H should be installed next to each other

Perimeter: 22mm x 19.5mm/24mm/20 x 20 x 20

The edge supports



天恩賜與官職，命為右軍中郎將，領兵討之。



cap to help security
explore connection



Box 121



20mm painted H20C steel angle iron, ref M12520/M12520Y
M564, fixed to perimeter wall using hangers appropriate to the
structure at maximum 450mm centers. Corners shall normally be
finished with a lap joint or butt joint.

Hangers - Seismic Application Shall be Permitted

2. Form connector holes using a 2500-Hz, 10-g hammer blow through holes in each end of main runner and wrapped around itself a minimum of 3 times. Alternatively, hangers can be formed from a 3.0-mm adjustable nut hanger on 25 x 25-mm I-beam angle section, not DCA's, fixed to main runners using 400-Nut and drilling screws or nut and bolt hangers. Hangers should be vertically aligned at 100-mm centers along all main

Things appropriate to the structure or style.

Hold down clips. Where applicable, these shall be non-removable type clips. These generally will only be required in certain tie protecting situations or where there is a risk of the split. When fitted, these should be applied to all grid members at a rate of 1 per 600mm of the edge.



SPECTRO
GENERAL TRADING

WALLS

LED LIGHTS / SWITCHES / SOCKETS



PRODUCT DATASHEET

LED Value Slim Downlight 18 W/6500 K

LED VALUE SLIM DOWNLIGHT | Flat downlight luminaires



Areas of application

- Corridors, entrance areas
- Foyers
- Elevators
- Retail

Product benefits

- Die-cast aluminum housing for improved heat dissipation
- No light can escape at the back of the luminaires thanks a special cover
- Elegant design

Product features

- Product color: white
- Available with color temperature: 3,000 K, 4,000 K, 6,500 K
- Color rendering index R_a : > 80
- High color consistency: ≤ 6 SDCM
- Luminaire efficacy: up to 89 lm/W
- Type of protection: IP20
- Lifetime (L70/B50): up to 30,000 h
- Protection class: III
- Uniform illumination



PRODUCT DATASHEET

LED Bulkhead 11W 4000K Black

LED BULKHEAD | Wall and ceiling luminaires



Areas of application

- Outdoor
- Basements, garages, warehouses

Product benefits

- Easy and quick installation
- Energy-efficient thanks to LED technology

Product features

- Bright and functional outdoor LED luminaires
- Type of protection: IP54





ELECTRIC

HAGER / ABB IP66 ISOLATOR

2

WEATHERPROOF SWITCHES AND SOCKET OUTLETS SWITCHED ISOLATOR IP66

Weatherproof Switched Isolator IP66



Range features:

- Degree of protection IP66 prevents dust and powerful water jets
- Complies to outdoor applications
- Enclosure made of high quality PC materials and high temperature insulation
- Resistance to Ultra Violet (UV) radiation and anti-corrosion

Isolator:

- High reliability with 4500 A rated short-circuit making capacity for isolators
- Complete accessories for easy installation

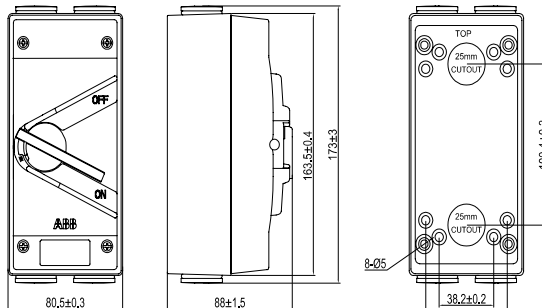
Technical Specification

Standard Specifications	IEC 60947-3 (Third Edition) + A1:2012 + A2:2015
Number of poles	2P & 4P
Rated operational current	20 A, 32 A, 45 A, 63 A
Rated operational voltage	240 V/440 V
Rated insulation voltage	630 V
Rated impulse withstand voltage	2.5 KV 1.2/50 μ s
Rated frequency	50/60 Hz
Rated utilization	AC-23 A
Rated making capacity	3 Ie
Rated breaking capacity	3 Ie
Rated short-time withstand current	15 Ie for 1 s
Rated short-circuit making capacity	4500 A
Pollution degree	3
Degree of protection	IP66

Ordering details

Stock code	Type	Description
2TCZ751006R0001	WSD220CL	20 A 2P Switch-Isolator
2TCZ751006R0002	WSD232CL	32 A 2P Switch-Isolator
2TCZ751006R0003	WSD245CL	45 A 2P Switch-Isolator
2TCZ751006R0004	WSD263CL	63 A 2P Switch-Isolator
2TCZ751006R0005	WSD420CL	20 A 4P Switch-Isolator
2TCZ751006R0006	WSD432CL	32 A 4P Switch-Isolator
2TCZ751006R0007	WSD445CL	45 A 4P Switch-Isolator
2TCZ751006R0008	WSD463CL	63 A 4P Switch-Isolator

Dimensions





SPECTRO
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Description

Cosmoplast / Clipsal 25mm PVC Conduit HD bending type

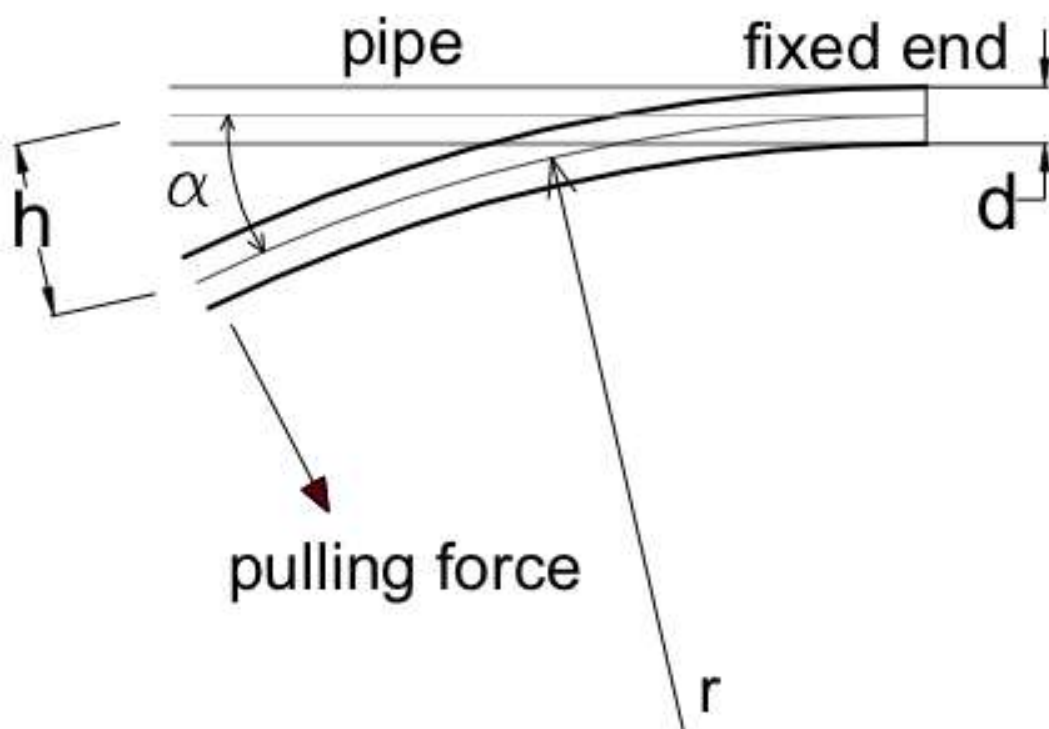
Specification

Brand: Clipsal / Cosmoplast

Size: 25mm

Thickness: 1.8mm (HEAVY GAUGE)

Colour: Black





SPECTRO
GENERAL TRADING

BS EN / IEC 61386-1 & 21, IEC 60423



Electric Cabling Accessories

- Conduits
- Couplings
- Adapters
- Boxes
- Bends
- Saddles
- Circular Lids
- Circular Extension Ring
- Adaptable Boxes
- Bending Springs
- Clear PVC Solvent Cement

SPECTRO
GENERAL TRADING



DISTRIBUTION BOX

HTB - SERIES

ZHTB Series Distribution box is in accordance with IEC-403-1 standard, attractive and durable, safe and dependable, and is extensively utilized in a variety of settings such as industries, mansions, residences, shopping malls, and so on.

Construction

Surface Mount distribution boxes are composed of high-quality heavy-duty ABS that is UV resistant, never changes colour, and is fire resistant. It was intended for the Gulf and African electrical markets and can fit the majority of the top brands of circuit protection devices and accessories on the market today.

The power distribution box's wiring design includes a guide rail support plate that can be lifted to the highest adjustable position, eliminating the need for a restricted space when installing wire for easier installation, and having a modular capacity of up to 18 modules.

Designed for interior and exterior applications when a high level of protection is required.



Features

- The panel is an engineering material made of ABS, which has exceptional strength and does not change colour; the transparent material is PC.
- Cover the push-type opening and closing. The distribution box's face covering opens and closes using a push-type mechanism; the face mask can be opened by softly pressing, and a self-locking positioning hinge structure is given when opening.
- Wiring design for the power distribution box The guide rail support plate can be raised to its highest adjustable point, eliminating the need for a small space while installing the wire. To make installation easier.
- The distribution box switch is equipped with wire grooves and wire pipe exit holes that are suitable for a wide range of wire grooves and wire pipes.

INSTALLATION	WINDOW	MATERIAL	WATER PROOFING	FIRE RETARDANT	MODULES	TERMINAL 1	TERMINAL 2
RECESSED/ SURFACE	BLACK PVC	ABS	IP65	CLASS I	RAIL	NEUTRAL	EARTH

MODEL	MODULES	A	B	C	D
ZHTB-5	2-5 WAY	120	160	90	3400
ZHTB-8	6-8 WAY	207	161	98	3300
ZHTB-12	10-12 WAY	255	198	108	8400
ZHTB-15	12-15 WAY	305	200	108	9000
ZHTB-18	15-18 WAY	365	200	108	1.070
ZHTB-18	20-24 WAY	273	356	108	1.350





SPECTRO
GENERAL TRADING



Latch

Design with Safety

Window

Before opening the entire box, use the See Thru window to identify the short circuit issue. Large open window to handle wiring issues.



Rubber Gasket

Close the operation window properly to prevent water and dust. 20°90 Shore rating

Construction

Made of ABS. Material smooth surface Shock absorber. Rubber gasket in the bottom box and top cover junction regions to keep water and dust out. 20-90 Shore rating. This product class I fire retardant.



Reserve Knock Down Holes

Wiring holes on all four sides of the box are simply threaded and ready for use, facilitating wiring from any direction.

Built-in Modular Rail

The distribution box has an integrated modular rail to mount PLCs, MCCBs, RCDs, & MCBs for installation convenience.



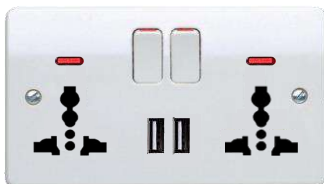
Built-in Shorting Bar

The distribution box has an integrated neutral and earth shorting bar for convenience.





VZ205U2



VZ206U2



T405W-MF+2USB



T405G-MF+2USB



T405S-MF+2USB



T405MB-MF+2USB



NOVEX Electric USB charging solutions are also designed with inherent safety features such as overload protection and automatic disconnect on the modular product when the cable is removed.

In addition, users can benefit from a fixed installation USB charger by requiring just one charging cable to be used for multiple devices, which avoids the need to carry a variety of bulky adaptors for different devices. The NOVEX Electric solution is also designed to provide optimal charging performance, enhancing the user experience by delivering fast charging solutions.

The recent advances in Smartphones and tablets, means that many of us now depend upon them to keep in contact in both our personal and professional lives. A recent study by Forbes suggested that by 2017, 87% of the worldwide smart connected device market will be tablets and Smartphones and the need to keep the integral batteries charged and the devices functional has never been greater.

In 2013 NOVEX Electric was one of the first UK manufacturers to introduce a range of award winning USB charging modules, and now this technology is being integrated into our market leading twin socket. The USB charging capability will now be integral within 6 NOVEX Electric wiring device ranges – Logic Plus, Metalclad Plus, Albany Plus, Edge, Aspect and the newly introduced Elements, offering the widest choice and flexibility to suit any application. Fixed installation USB chargers remove the need for continual PAT testing of adaptors and takes away the risk of unapproved chargers being used, which can lead to damage of devices.



Airports, hotels, universities, schools, retail outlets and any other environment that regularly host visitors with a mobile device, would benefit from the USB charging solutions which NOVEX Electric can provide.

NOVEX[®]

USB Charging Solutions

USB SOCKET – FEATURES AND BENEFITS

As 2014 marked the UK production of the 100 millionth socket for NOVEX Electric at its Southend site, it also signified a milestone change in the way devices will be powered and charged in the future. With USB charging capability being built into the most iconic product within the Novex Electric portfolio, USB adoption is well and truly here to stay.

Yet whilst building innovation into our core, we have stayed true to our heartland in ensuring that safety, quality and reliability are at the forefront of everything we design.

Double Pole Switching

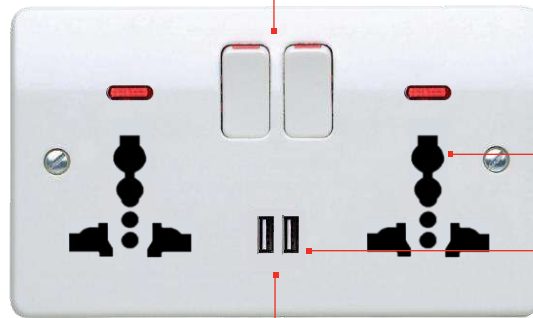
Neutral makes first, breaks last

3mm Minimum Switch Contact Gap

Eliminates possibility of circuit forming when in the off position

3-Pin “Child Resistant Shutter System”

Designed to inhibit access to the electricity supply, unless all 3 pins of a standard British 13A plug are in position



Vertically stacked central USB ports

Access to USB ports is not restricted when using virtually any standard 13A plug, including moulded plugs

Two 5V Outlets With A Combined Total Of 5A Charging

To provide optimal charging capacity 2A can be drawn fully from one port when one device is charging or split between ports when devices are charging simultaneously

Dynamic Device Recognition

By detecting the nuances between the differing charging configurations tablet manufacturers use, the product can react accordingly for optimal charging efficiency

Electrically Protected Against An Overload Or Short Circuit

Prevents damage to the socket and provides safety to the user in the event of an overload or short circuit conditions

Backed Out Terminal Screws Kept Captive Within The Terminal Housing

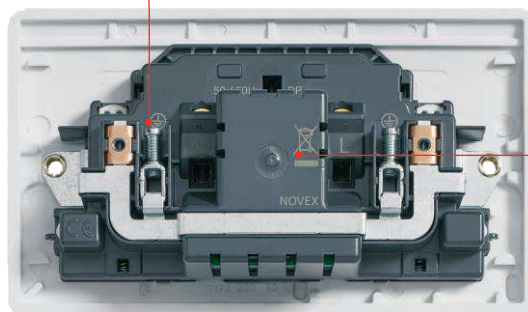
Aids, and makes installation faster

In Line Terminals

Allows wire to be cut stripped to the same length for faster and easier installation

Funnel Entrance To Terminals

Terminals are upward facing to make installation easier



Dual Earth Terminals

For high integrity earthing



USB INTEGRATED SOCKET – FAQ

What charging capacity does the socket provide?

The Novex Electric USB Integrated socket provides a total of 5A charging capacity. This means that if only one device is connected, the total rated output current of 5A is available from either port. In the event that both ports are connected, the total rated current will be divided between the two ports.

Novex dynamic device recognition detects differing charging configurations and requirements and reacts accordingly, for example if two devices were charging simultaneously, more current will be diverted to the device with the least charge and the biggest demand.

What is Dynamic device recognition?

Tablet manufacturers have each adopted differing configurations for charging their devices. The NOVEX Electric USB Integrated socket has been designed such that it understands and recognises this nuance and is designed to react accordingly, rather than be aligned to one specific charging configuration. This ensures we provide the optimum charging compatibility across a broad range of devices.

Can I charge two different devices from two different manufacturers at the same time?

The Novex Electric USB Integrated socket is designed such that the dynamic device recognition is unique to each USB port which means that different manufacturers devices can be charged simultaneously without any impairment to the other. As well as different manufacturers, each port can also charge different types of devices at the same time i.e. the ports are not allocated to specific devices such as tablets or phones.

How can I be sure my device will be compatible?

Novex Electric has undertaken extensive compatibility testing and found that numerous devices from various manufacturers are compatible.

Which standards do your products conform to?

The Novex Electric USB charging socket holds the CE mark as it conforms to all the safety certification and approvals applicable for a 13A socket including BS5733, BS1363-2 and IEC 61558-2-16. Novex Electric prides itself on delivering the safest solution to our customers, which is why we also have conformity to the relevant directives applicable to electronic products and which should be mandatory for this type of product. This includes IEC 61000-6-1 and IEC 61000-6-3 which covers Electromagnetic compatibility (EMC).

What back box depth will I need?

All products will fit into a 35mm back box, with the exception of the Edge™ range which requires a 47mm back box. For extra wiring space we would recommend the use of a 47mm back box for Aspect products, in line with current practice. We will also be offering a 10mm moulded pattress to allow retrofit into a shallower box.

Why are your USB ports vertically stacked in the centre of the socket?

The Novex Electric USB charging socket has its USB ports aligned under the rockers to ensure the least disruption to the 13A plug space. When larger transformer type plugs are used on the 13A outlets, there is the risk that they will cover the USB ports and make them inaccessible if they are located elsewhere on the socket. Locating them in the way that we do allows for all four outlets to be used simultaneously.