# <u>Title</u>

# Material Submittal for Fire Rated Door

# **Brand**

# **Falcon Gold**

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- Door Data Sheet.
- Fire Test Certificate (Intertek Approval).

## Door Accessories Data Sheets and Certificate.

- *1- Honeycomb. 2- Anchor.*
- 3- Powder Coating.
- 4- Vision Glass.
- 5- Mill Test Report.
- Civil Defence.
- Company Licence.
- Quality Plan.
- ISO Certificate.
- Draft Wrranty.

# Door Data Sheet.

### Project Name :

SR. NO	DESCRIPTION	PROPOSED SPECIFICATION
1	Brand Name	Fort
2	Door and Frame Fire Resistance Standard	BS476 Part22(1987)/EN1634-1(2014)
3	Leaf Sheet Thickness	1mm
4	Leaf Thickness	45mm
5	Door Core	Honeycomb
6	Door Edges	Seamed
7	Door Finish Paint	Polyester powder coating
8	Frame Sheet Thickness	1.2mm
9	Frame Jamb Depth	150mm
10	Frame Construction	Welded
11	Frame Profile	Single rabbet
12	Door Fire Rating	Up to 120 Minutes
13	Vision Panel	-

### FORT Fire Steel doors Specification

#### PRODUCTS

Bin Ghurair Trading is proud to be able to offer the supply and installation of many door products than ever before. Following is the list of our main Products.

#### **Steel doors and Frames**

- Fire rated hollow metal steel door & frame
  - I. UL 10B/10C: 90 Min Fire rating
  - II. BS476: Part 22 (1987) from BRE (UK) for 180Min FR
  - III. BS476: Part 22 (1987) from Exova Warrington for 240Min FR
- Non Fire rated hollow metal steel door & frame
- Special Door types from branded Supplier.
  - I. Acoustic door (STC-30,STC-32,STC-37)
  - II. Temperature Rise Rated doors (TRR doors)
  - III. Smoke Proof Doors

#### **BGT Hard Wares**

#### Door Handles, Locks & Hinges

BGT's line of mortise, Handles available in a broad array of metal, designs, finishes. sizes, and weights and cylindrical, tubular, and dead bolt locks offers a comprehensive selection locks that meet the functional and aesthetic requirements of commercial and institutional doors.

BGT offers the broadest range of full mortise hinges in a variety of metals, finishes, sizes, and weights to meet all your load bearing and security applications. They include two, three, and five knuckle styles, swing clear hinges, wide throw hinges, anchor hinges, electric hinges, institutional hinges and pivots.













#### **Builder's hardware (ironmongery)**

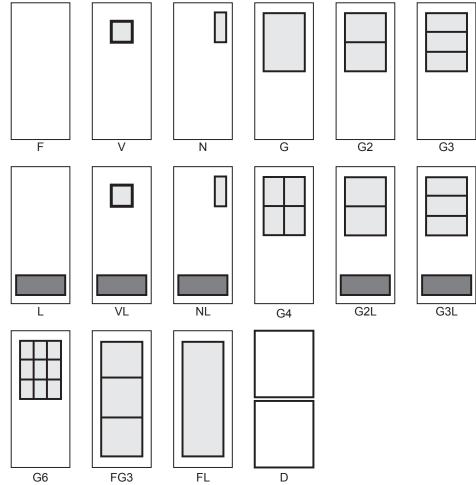
- I. North American Hardware.
- II. European Hardware



#### Nomenclature for standard **FORT**® door designs.

**FORT**® door Designs are in accordance with ANSI A250.7-1997 "Nomenclamre for standard steel doors & Steel frames" and 'SDI 106-99 'Recommende Standard door type Nomenclature".

#### NOMENCLATURE FOR STANDARD DOOR DESIGNS



#### NOMENCLATURE LETTER SYMBOLS EXPLANATORY NOTES

- F. 'Flush door"
- V. "Vision Lite Door", 250mm Square-lite.
- N. 'Narrow Lite Door", near the lock stile.
- G. 'Glass Door"
- L. "Louvered door" Fire rated & Non\_Fire rated
- FL. "Full Louvered Door"
- D. 'Dutch Door", A two panel door, separated horizontally











#### **FORT**<sup>®</sup> Doors are available with many features

- ✓ Non-Handed
- ✓ Handed
- ✓ Seamed edge
- ✓ Seam edge track welded and filled
- ✓ Polystyrene core doors NFR
- ✓ Honeycomb core doors BS476 from Exova Warrington for 240Min FR
- ✓ Polyurethane core doors NFR
- ✓ Rock wool, Steel stiffened core doors UL 10B/10C: 90 Min Fire rating
- Steel Stiffened with any option of core
- ✓ Oversize doors and frames
- ✓ Double acting doors NFR
- ✓ Transom panels
- ✓ Vertical or horizontal removable or non removable mullions
- ✓ Bi-fold doors
- ✓ Custom size doors
- ✓ Louver doors
- ✓ Doors with variety of vision panels in various sizes and shapes
- ✓ Pocket pivot preparations
- ✓ Concealed hardware preparation
- ✓ Mortise / Cylindrical lock preparation etc.
- ✓ Security Doors













#### BGT Service after sale,

Due to our commitment to provide all our clients with top class service, we established BGT Maintenance Division to attend all service inquiry for all our existing installations in U.A.E.

We have invested in this Dept. to ensure high level of concern to attend all our client service calls within 48 hours policy and to become effective on practical performance of our service teams.

#### **Our Features:**

Mobile equipped service vans which is able to perform all your door required maintenance

Our Toll free service to attend all your call at any time of the day.

4 service teams trained to solve all door problems within 2 hours.

#### BGT Maintenance work through two types of plans:

I. Annual Service Maintenance Contract for our client by attending 3 visits yearly with some standard replacement items to ensure the door excellent performance & longer lifetime.

Attend on call within 48 hours, means our Team will come to visit once he receive the call within 48 hours and charge on site.











# Fire Test Certificate (Intertek Approval).

# intertek

Total Quality. Assured.



This is a certificate of compliance to certify that the bearer has successfully completed the requirements of the above scheme which include the testing of products, the initial assessment, and are subject to continuing annual assessments of their compliance and testing of samples of products taken from production (as applicable to the scheme) and has been registered within the scheme for the products detailed.

# **Certificate of Compliance**

#### You have been awarded: WH Service Mark 2014 for Category D -Door/frame Assemblies

Standards: BS 476 Part 22 (1987)

Certificate number: WHI18-29215809

**Organization:** Bin Ghurair Metal Industries L.L.C. Plot No. 597-400 Dubai Investment Park 2 Dubai United Arab Emirates

**Product:** Bin Ghurair - BS 476 Part 22 - Swinging Type Fire Door & Frame Assembly (Honeycomb Infill) *Spec ID*: 43264 *Fire Rating*: 2 Hour Fire Rated, 4 Hour Fire Rated *Label Traceability*: W/N 21535 *Listing Information*: See following page(s)

Certification body: Intertek Testing Services NA, Inc. Initial registration: April 16, 2018 Date of expiry: December 31, 2023 Issue status: 8

Authorized By:

Jean-Philippe Kayl, Director of Certification

Intertek Testing Services NA, Inc. 545 E. Algonquin Road, Ste H., Arlington Heights, IL 60005 USA Phone: 847-439-5667 Fax: 847-439-7320

www.intertek.com

The certificate and schedule are held in force by regular annual surveillance visits by Intertek Testing Services NA, Inc. and the reader or user should contact Intertek to validate its status. This certificate remains the property of Intertek Testing Services NA, Inc. and must be returned to them on demand. This Certificate is for the exclusive use of Intertek's Client and is provided pursuant to the Certification agreement between Intertek and the Client. Intertek's regionalibility and liability are limited to the terms and conditions of the agreement. Intertek assesses or damage occasioned by the use of this certificate. Only the Client is authorized to permit copying or distribution of this certificate and then only in its entirety. Use of Intertek's Client netwer is estricted to the coment. Any further use of the Intertek name for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. Initial Factory Assessments and Follow up Services are for the purposes of assuring appropriate usage of the Certification mark in accordance with the agreement, they are not for the purposes of production quality control and do not relieve the Client of their obligations in this respect.



### LISTING INFORMATION

#### FIRE RESISTANT PRODUCT AND COMPONENTS

Fire door and frame assembly - Honeycomb infill type

#### PRODUCT COVERED

Single and Double Leaf Steel Fire Door and Frame

#### **PRODUCT DESCRIPTION**

Single and Double leaf (1mm thick), hollow metal type, honeycomb infill fire doors intended for use in masonry constructions.

The door frame (1.2mm thick) can be installed with or without grouting.

Limitations: Minimum latch throw - 12mm.

#### Maximum sizes for Single leaf door assembly:

#### For 240 minutes rating (as tested):

Single door frame - 976mm x 2200mm x 146mm (w x h x jamb depth) Single door leaf - 870mm x 2132mm x 45mm (w x h x thickness)

Allowed Extended Sizes for **120 minutes or lower** fire rating:

	, , , ,	• • • • •	Area (sq. m) (35%)
Single Door Frame	1268 (at 2285mm height)	2860 (at 1014mm width)	2.90
Single Deer Leaf		2772	2.50

Allowed Extended Sizes for 180 minutes fire rating:

		Height (mm) (20%)	
Single Door Frame	1171 (at 2292mm height)	2640 (at 1017mm width)	2.68
		2558	2.32

#### Maximum sizes for Double leaf door assembly:

For 240 minutes rating: Double leaf door assembly not allowed for 240 minutes fire rating

#### For 120 minutes rating:

Maximum Double door frame size: 1952mm x 2200mm x 146mm (w x h x jamb depth) Maximum Double door leaf size (each leaf): 870mm x 2132mm x 45mm (w x h x thickness)

Allowed Extended Sizes for 60 minutes or lower fire rating:

	1000000000000000000000000000000000000	Height (mm) (20%)	Area (sq. m) (25%)
Double Door Frame	(at 2292mm	2640 (at 2033mm width)	5.37
Double Door Leaf	l(at 2221mm	2558 (at 906mm width)	2.32

#### Allowed Extended Sizes for 90 minutes fire rating:

	Width (mm) (15%)	Height (mm) (15%)	Area (sq. m) (20%)
Double Door Frame	(at 2296mm	2530 (at 2037mm width)	5.15
Double Door Leaf	I(at 2225mm	2452 (at 908mm width)	2.23

Allowed vision panel glass size - 225mm x 725mm x 5mm (w x h x thickness)

#### RATINGS

The single & double door and frame assembly has been evaluated in accordance with BS 476 Part 22 standards and achieved the following ratings:

Integrity	120 Minutes
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Note: Single door assemblies are allowed for up to 240 Minutes Integrity Classification period

# Door Accessories Data Sheet.



Located in the garden city of India, Bangalore, HonECOre<sup>™</sup> is the largest selling premium paper honeycomb brand in India with a state of the art facility to manufacture paper honeycomb with highly advanced paper honeycomb production technology.

HonECOre<sup>™</sup>, today stands as a well renowned and the most recognized brand of paper honeycomb made in India and has, under its portfolio of client's, some of the distinguished players from the wood working, sheet metal and packaging industry.



Complete range of paper honeycomb solutions through a single window approach with its strategic collaboration with







HonECOre<sup>™</sup> provides end-to-end paper honeycomb solutions under one roof. Made from recycled kraft paper honECOre is 100 % Eco-Friendly, Borer and Termite free.



#### **Distinct Cost Advantages of using honECOre-Paper Honeycomb**

#### Transportation Raw Material:

Particulars	Capacity	No of Doors that can be mfr.
1 truck 22'	16 tons	355 nos
1 truck 22'	16tons	9000 nos

#### **Transportation of finished products:**

Particulars	Capacity	No of doors
1 Truck 22' Wood	16 tons	355
1 Truck 22' Honecore Doors	16tons	630

#### **Inventory Storage:**

- 1 sqm pallet of honECOre can hold 500 doors material.
- You need 1375 cubic ft of space for the similar quantity of doors.



#### **Faster Production Times:**

• Time taken to manufacture 1 wooden door the time taken against Honeycomb Doors.

Process Involved	Wooden Doors	Honeycomb Doors
Frame Assembly	2 mins	2 mins
Core Assemble	8 mins	1 min
Process Assembly	4 mins	2 mins
Pressing	7 mins	6 mins
Total Time Taken	21 mins	11 mins

#### SUMMARY OF DISTINCT COST SAVING ADVANTAGES BY USING HONECORE™

- You get 25 times more material at the same logistic cost
- You save up to 50 % of transportation of finished honeycomb doors as compared to wooden doors.
- You save 90 % of inventory space
- 50 % faster production times saving 50 % of work force.



#### **HonECOre™-Technical Data Sheet**

Product Code	honECOre 1500/15	honECOre 1500/21	honECOre 1800/28
Cell Size	15mm	21mm	28mm
Maximum Width(expanded)	Up to 1200 mm	Up to 1200 mm	Up to 1200 mm
Length	As per client specification	As per client specification	As per client specification
Thickness	6mm-500mm	6mm-500mm	6mm-500mm
Paper	150 gsm Recycled Kraft	150 gsm Recycled Kraft	180 gsm Recycled Kraft
Density	30 kg/m3	22kg/m3	18kg/m3
Compression Strength(@3% moisture content)	3.5 kg/cm2	1.75kg/cm2	1.95kg/cm2
Moisture Content(ex- works)	5-7 %	5-7%	5-7%

Product Specification	
Block Cut honECOre	Standard Size (width* length)           honECOre 1500/15 – 915mm*2150mm           honECOre 1500/21 - 915mm*2150mm           honECOre 1800/28 – 1015mm*2150mm
Continuous honECOre	Width upto 1200mm(expanded) and length specified by client.
Minimum Order Quantity	1000 sqm.
honECOre EX/1500/D	Recommended for Continuous honECOre.

#### Annexure:

1. Paper used is 100 % Eco-Friendly.

2. honECOre<sup>™</sup> is 100 % Anti-Fungi, Borer and Termite Free

3. Greater compression strengths can be achieved by using honECOre expander EX/1500/D. The expander would further bring the moisture content of the paper below 3 %.



To achieve the most optimum compression values for a given specification of paper honeycomb, the moisture level's need to be to the minimum level possible.

#### Introducing honECOre<sup>™</sup> EX/1500/D expander series.

The honECOre<sup>™</sup> EX/1500/D expander series are the state of the art and technologically most advanced paper honeycomb expander machines complimenting the usage of honECOre<sup>™</sup>-Paper Honeycomb Solutions. The core comes in a continuous format which is fed through electric heating which in a controllable temperature ranging from 80-150 Degree Celsius expands remove's the moisture content from the paper to 2-3 %. By this, the paper comes out in a expanded format which in turn bear's maximum compression value for a given surface area. This through an in built PLC controlled cutter is cut to desired lengths ready for production.

#### The advantage of using the honECOre<sup>™</sup> expander machine are:

#### Optimum utilization of the raw material:

Our client saves 20-25 % of the material as the honeycomb core is expanded and cut to sizes as against using the material manually.

Achieve maximum compressive strength as the moisture content of the material is brought down to 2-3 % before production.

#### Faster production times:

Up to 4m/min ( 2 doors/min) speed's can be achieved through honECOre EX/1500/D. Since the honeycomb is cut to size and adequately expanded (does not contract back as against using it manually), it increases production capabilities substantially.

#### Saving of work force:

Our client's save 2 workmen which would be required when one manually expands the honeycomb core. Hence, we at team honECOre<sup>™</sup> strongly recommend to our client's to procure the expander machine to get the best compression results and optimum utilization of the material i.e., achieve greater product quality and efficiency.

Particulars	Specifications
Motor power	0.2KW
Heating type	Electric heating
Total power for heating device	12 KW
Production speed (max)	4m/min
Applicable core paper width (Max)	1500mm
Expanded core paper width(Max)	1200mm
Thickness for core paper	10-90 mm
Dimension of machine	4200*1800*1300mm
Cutting Type	Automatic Cutting.

Model Number: honECOre<sup>™</sup> Ex/1500/D





### HonECOre<sup>™</sup> Applications:</sup>

SEMIFINISHED PANELS			
Overview	<ul> <li>w of all facts:</li> <li>Design of lightweight panels <ul> <li>Lightweight panels consist of three base elements:</li> <li>Top layer: top side and bottom side <ul> <li>a. 3 mm, 4 mm MDF, HDF</li> <li>b. 3 mm, 4 mm Moisture resistant ply</li> <li>c. 4 mm ,8 mm Particle board</li> </ul> </li> <li>Core: Hexagonal Paper Honeycomb</li> <li>Frame: optional (with or without)</li> </ul></li></ul>		
	Characteristic of lightweight panelsLightweight panels provide excellent characteristics for furniture construction and shop fitting.Weight reductionVery high load capacityHigh stabilityLong service lifeWide spansAlmost no saggingOptimized transportEasy assemblyEco friendlyAesthetic appeal using thicker panels		
	Use of lightweight panelsThe lightweight panels are suitable for a wide variety ofapplications in kitchens, living rooms and bedrooms.For example:Home furnitureConference tablesKitchen worktopsShelvingDesksShop fittingDoorsPartitions		



#### In construction:

- Doors (wooden, metal, frp etc)
- Panels table top, kitchen cabinetry, flat panel modular furniture (ranging from 12mm up to 150mm thick panels and more)
- Clean Rooms/Panels
- False roofing, ceiling
- Office and Residential Interiors.
- Pin up boards, white boards.

#### In Packaging:

- Paper Pallets
- Void Fillers
- Separators
- Customised primary and secondary packaging.

HonECOre<sup>™</sup>, is an evolutionary product that replaces non eco-friendly materials like wood and EPS in their respective applications while preserving the key virtues of their usage in the concerned applications. On its own HonECOre<sup>™</sup> is an eco-friendly, versatile, flexible and lightweight material that has excellent compatibility with other materials and an excellent strength-to-weight ratio. It combines with plywood, steel, plastics, FRP and many other materials as its sandwich faces to form some of the strongest composite panels for its weight and dimensions. It is also more economical than most materials, thereby making it an ideal choice. As a product made from recycled paper and eco-friendly glue, it is a boon to the earth as a 100% bio-degradable, non polluting, eco-friendly material. Large scale usage of paper honeycomb can drastically boost a country's aim of preserving the nature.

So the change is visible. The change is not the technology.. It is our " acceptance of the technology" A technology which is lightweight, eco-friendly, sustainable and provides economy of operations. It is time we accept the change..

> It is time we **"Get Wise"!** Join us .. it's the Green Revolution!

Thanking you, Yours faithfully, For Lsquare Eco-Product's Pvt Ltd,

Rohit Bhandari (Business Development)



### **METAL FRAM ANCHOR ZINC PLATED**



#### Art.No. 1904 41072

Installation direction : Material, corrosion : Countersunk, Flat head Indoor, dry conditions Through-fastening Steel, 4.6 grade, zinc-plated (min. 5 µm), Sheet steel, sendzimir zinc-plated to approx. 16µm All Steel, zinc-plated

Anchor Size Drill	Sleeve length	Machine Screw	Drill Hole Depth	Fixing Length Max	Article No.	Item Name
(φ)	(L)					
φ10x172 10	72	M6x85	50	40	1904 41072	Metal Fram Anchor Zinc Plated 10*72
φ10x92 10	92	M6x105	50	60	1904 41092	Metal Fram Anchor Zinc Plated 10*92



# **Product Data Sheet**

AkzoNobel Powder Coatings

Interpon D1025 Texture

Product Code Product Description	intended for use on archit Interpon D1025 Texture As part of the Interpon D exterior durability and co standards. All Interpon	ectural aluminium and galvanized has a better scratch resistance th 1025 series of architectural coatin lour retention and conforms to th <b>D1025 Texture</b> are lead-free and (formerly BS6496 &BS6497), - as er: P-1348 (UAE)	gs, <b>Interpon D1025 Texture</b> gives excellent e requirements of all the major architectural meet the requirements of Qualicoat class 1,			
Powder Properties	Chemical type	Polyester				
	Gloss (EN ISO 2813 (at 60°))	Texture				
	Particle size	Suitable for electrostatic spray				
	Specific gravity	$1.2 - 1.9 \text{ g/cm}^3$ depending on co	lour			
	Storage	Dry cool conditions below 30°C ( boxes must be resealed)				
	Shelf life	24 months below 30°C				
	Stoving schedule (Object Temperature)15-30 minutes at 190°C 10-20 minutes at 200°C 8-16 minutes at 210°C Test condition: 10 minutes at 200°C					
Test Conditions	indicated) have been ca		nemical tests which (unless otherwise ns and are given for guidance only. Actual			
	product performance wil	I depend upon the circumstances				
		I depend upon the circumstances				
	Substrate	I depend upon the circumstances Aluminium (0.5-0.8 mm Al Mg1)				
	Substrate Pretreatment	I depend upon the circumstances Aluminium (0.5-0.8 mm Al Mg1) Chromate (DIN 50539)				
	Substrate Pretreatment Application method	I depend upon the circumstances Aluminium (0.5-0.8 mm Al Mg1) Chromate (DIN 50539) Electrostatic spray	under which the product is used.			
	Substrate Pretreatment	I depend upon the circumstances Aluminium (0.5-0.8 mm Al Mg1) Chromate (DIN 50539)	under which the product is used.			
Mechanical Tests	Substrate Pretreatment Application method Dry Film Thickness Stoving Schedule Flexibility Adhesion	I depend upon the circumstances Aluminium (0.5-0.8 mm Al Mg1) Chromate (DIN 50539) Electrostatic spray 70 – 120 microns (as per the pat	under which the product is used.  ttern size)  perature)  Pass 5mm Gt0			
Mechanical Tests	Substrate Pretreatment Application method Dry Film Thickness Stoving Schedule Flexibility	I depend upon the circumstances Aluminium (0.5-0.8 mm Al Mg1) Chromate (DIN 50539) Electrostatic spray 70 – 120 microns (as per the pat <b>10 minutes at 200°C</b> (object ten ISO1519 (cylindrical mandrel)	under which the product is used.  ttern size)  perature)  Pass 5mm Gt0 Pass 5mm			
Mechanical Tests	Substrate Pretreatment Application method Dry Film Thickness Stoving Schedule Flexibility Adhesion	I depend upon the circumstances Aluminium (0.5-0.8 mm Al Mg1) Chromate (DIN 50539) Electrostatic spray 70 – 120 microns (as per the pat <b>10 minutes at 200°C</b> (object ten ISO1519 (cylindrical mandrel) ISO2409 (2mm crosshatch) ISO1520 ISO6272:1993	under which the product is used.  ttern size)  perature)  Pass 5mm Gt0			
Mechanical Tests	Substrate Pretreatment Application method Dry Film Thickness Stoving Schedule Flexibility Adhesion Erichsen Cupping	I depend upon the circumstances Aluminium (0.5-0.8 mm Al Mg1) Chromate (DIN 50539) Electrostatic spray 70 – 120 microns (as per the pat <b>10 minutes at 200°C</b> (object ten ISO1519 (cylindrical mandrel) ISO2409 (2mm crosshatch) ISO1520	under which the product is used. ttern size) nperature) Pass 5mm Gt0 Pass 5mm Pass 5mm Pass 5.5 Joules reverse & direct			
Mechanical Tests Chemical Tests	Substrate Pretreatment Application method Dry Film Thickness Stoving Schedule Flexibility Adhesion Erichsen Cupping Impact	I depend upon the circumstances Aluminium (0.5-0.8 mm Al Mg1) Chromate (DIN 50539) Electrostatic spray 70 – 120 microns (as per the pat <b>10 minutes at 200°C</b> (object ten ISO1519 (cylindrical mandrel) ISO2409 (2mm crosshatch) ISO1520 ISO6272:1993	under which the product is used. ttern size) nperature) Pass 5mm Gt0 Pass 5mm Pass 2.5 Joules reverse & direct (20 in lb) >80 <pre></pre>			
	SubstratePretreatmentApplication methodDry Film ThicknessStoving ScheduleFlexibilityAdhesionErichsen CuppingImpactBuchholz hardnessAcetic acid salt spray	I depend upon the circumstances Aluminium (0.5-0.8 mm Al Mg1) Chromate (DIN 50539) Electrostatic spray 70 – 120 microns (as per the pat 10 minutes at 200°C (object ten ISO1519 (cylindrical mandrel) ISO2409 (2mm crosshatch) ISO1520 ISO6272:1993 ISO2815	under which the product is used. ttern size) nperature) Pass 5mm Gt0 Pass 5mm Pass 2.5 Joules reverse & direct (20 in lb) >80 <16 mm <sup>2</sup> corrosion/10cm, 1000 hours			



			Generally good resistance to acid,		
	Chemical Resistance	2	alkalis and oil at normal temperatures		
	Mortar Resistance	EN12206-1	No effect after 24 hours		
	Exterior durability	ISO2810 (1 year)	>50% gloss retention Colour retention according to GSB standard/Qualicoat class 1 Chalking noe in excess of minimum in ASTM D659:1980		
	Accelarated Weathering	ISO 11341 (1000 hrs) QUV B 313 (300 hrs)	Gloss retention $\ge$ 50% Gloss retention $\ge$ 50%		
Pretreatment	For maximum protect <b>D1025 Texture.</b>	ion it is essential to pretreat	components prior to the application of Interpon		
	chrome-free pre-treat		-stage chromate conversion coating or suitable to clean and condition the substrate. nent supplier.		
	phosphate or chrom	ate conversion or controlled g or use of anti-bubbling add	either multi-stage pretreatment using either zinc I sweep blasting. Depending on the type of Jitives may be required – follow the procedural		
		ure products may also be used er over a correctly prepared su	d on cast or mild steel. For outdoor use, <b>Interpon</b> ubstrate is recommended.		
Application	<b>Interpon D1025 Texture</b> powders can be applied by manual or automatic electrostatic spray or tribo- charging equipment. For solid shades, unused powder can be reclaimed up to a maximum of 20% using suitable equipment and recycled through the system. Please consult AkzoNobel for further details as to the correct mixing ratio for virgin/reclaim powder.				
	details as to the corre All powders can show While AkzoNobel take Applicators and fabric	ct mixing ratio for virgin/reclaim small colour differences from every precaution to minimize	n powder. batch to batch, this is normal and unavoidable. visible differences, this cannot be guaranteed. le batch for parts that will be assembled		
	details as to the corre All powders can show While AkzoNobel take Applicators and fabric together. Differences Bonded products have should still be paid to	ct mixing ratio for virgin/reclaim small colour differences from every precaution to minimize ators are advised to use a sing are more likely with special effe e better application properties t line settings in order to avoid "n	n powder. batch to batch, this is normal and unavoidable. visible differences, this cannot be guaranteed. le batch for parts that will be assembled ect powders.		
	details as to the corre All powders can show While AkzoNobel take Applicators and fabric together. Differences Bonded products have should still be paid to recycling. For more d	ct mixing ratio for virgin/reclaim small colour differences from every precaution to minimize ators are advised to use a sing are more likely with special effe better application properties t line settings in order to avoid "n etails it is suggested to read th uluminium, steel, galvanized ste	n powder. batch to batch, this is normal and unavoidable. visible differences, this cannot be guaranteed. le batch for parts that will be assembled ect powders. than blended products (more stable) but attention marble effect" and changes in aspect after		
	details as to the correl All powders can show While AkzoNobel take Applicators and fabric together. Differences Bonded products have should still be paid to recycling. For more d Different substrates (a thickness may give a	ct mixing ratio for virgin/reclaim small colour differences from every precaution to minimize ators are advised to use a sing are more likely with special effe better application properties t line settings in order to avoid "n etails it is suggested to read th uluminium, steel, galvanized ste	n powder. batch to batch, this is normal and unavoidable. visible differences, this cannot be guaranteed. gle batch for parts that will be assembled ect powders. than blended products (more stable) but attention marble effect" and changes in aspect after be <i>Metallic Application Guideline</i> . eel), use of primer, and big changes in film		
Post Application	details as to the corre All powders can show While AkzoNobel take Applicators and fabric together. Differences Bonded products have should still be paid to recycling. For more d Different substrates (a thickness may give a Products with differen	ct mixing ratio for virgin/reclaim small colour differences from every precaution to minimize ators are advised to use a sing are more likely with special effe e better application properties t line settings in order to avoid "n etails it is suggested to read th aluminium, steel, galvanized ste different aspect.	h powder. batch to batch, this is normal and unavoidable. visible differences, this cannot be guaranteed. le batch for parts that will be assembled ect powders. than blended products (more stable) but attention marble effect" and changes in aspect after le <i>Metallic Application Guideline</i> . eel), use of primer, and big changes in film ven if same colour and gloss.		
Post Application Maintenance	details as to the correl All powders can show While AkzoNobel take Applicators and fabric together. Differences Bonded products have should still be paid to recycling. For more d Different substrates (a thickness may give a Products with differen For specific advice on sealants, adhesives, t	ct mixing ratio for virgin/reclaim small colour differences from every precaution to minimize ators are advised to use a sing are more likely with special effe e better application properties t line settings in order to avoid "n etails it is suggested to read th aluminium, steel, galvanized ste different aspect. t codes should not be mixed even the suitability of post coating p hermal break, cleaning etc, ple	h powder. batch to batch, this is normal and unavoidable. visible differences, this cannot be guaranteed. le batch for parts that will be assembled ect powders. than blended products (more stable) but attention marble effect" and changes in aspect after le <i>Metallic Application Guideline</i> . eel), use of primer, and big changes in film ven if same colour and gloss.		

Disclaimer

#### FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE: The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advices given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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Akzo Nobel UAE Paints L.L.C. Al Quoz Industrial Area 1 Street No. 8 Dubai United Arab Emirates T +971 (0) 43472491 F +971 (0) 43472339 For more information, contact your local AkzoNobel representative www.interpon.com/contact-us

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Interpon.

# **APPROVAL**

### for coating materials

The Association for Quality Controls in the Lacquering, Painting and Coating Industry, abbreviated to QUALICOAT, hereby grants an approval based on the test results

Report submitted by (Testing laboratory):	IFO GmbH, Institut für Oberflächentechnik
Date of issue of the Approval:	03.05.2016
Approval valid until:	31.12.2017
System name:	Interpon D2525 fine texture
Valid only for Sublimation:	No
Gloss Category:	1
Class:	2
Structured Finished:	Yes (Textured)
Extension for P/P:	No
Extension for sublimation:	No
Metallic colours approved:	Yes
Banned colours:	
Manufactured by the company:	Akzo Nobel UAE Paints L.L.C.
Place:	AE - Dubai
P-No:	P-1349

This product may be described and labelled as follows

#### Product tested and approved for the quality mark



and may therefore be offered to all companies holding the quality label for paint, lacquer and powder coatings on aluminium for architectural applications

Zurich, 1 January 2017

QUALICOAT

M.C. Par

Mohammed C. Panam President

Josef Schoppig General Secretary

QUALICOAT, P.O. Box 1507, CH-8027 Zurich - Tödistrasse 47, 80027 Zurich (Switzerland) Phone: ++41 43 305 09 70/79 - Fax: ++41 43 305 09 98 - E-Mail: info@qualicoat.net - Internet: www.qualicoat.net

### **APPROVAL**

### for coating materials

The Association for Quality Controls in the Lacquering, Painting and Coating Industry, abbreviated to QUALICOAT, hereby grants an approval based on the test results

Report submitted by (Testing laboratory): Date of issue of the Approval: Approval valid until:	IFO GmbH, Institut für Oberflächentechnik 14.02.2014 31.12.2017
System name:	Interpon D2525 Satin
Valid only for Sublimation:	No
Gloss Category:	2
Class:	2
Structured Finished:	No
Extension for P/P:	No
Extension for sublimation:	No
Metallic colours approved:	Yes
Banned colours:	*
Manufactured by the company:	Akzo Nobel UAE Paints L.L.C.
Place:	AE - Dubai
P-No:	P-1202

This product may be described and labelled as follows

#### Product tested and approved for the quality mark



and may therefore be offered to all companies holding the quality label for paint, lacquer and powder coatings on aluminium for architectural applications

Zurich, 1 January 2017

QUALICOAT

M.C. Par

Mohammed C. Panam President

Josef Schoppig General Secretary

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421-1400

MEMBERS AMERICAN INSTITUTE OF CHEMICAL ENGINEERS NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS TEXAS SOCIETY OF PROFESSIONAL ENGINEERS ASM INTERNATIONAL SOCIETY OF PETROLEUM ENGINEERS OF AIME

#### DALLAS LABORATORIES, INC.

CONSULTANTS AND TECHNOLOGISTS ANALYTICAL AND RESEARCH CHEMISTS --CHEMICAL ENGINEERS -- PETROLEUM ENGINEERS

> P. O. BOX 152837 1323 WALL ST.

DALLAS, TEXAS 75315

MEMBERS AMERICAN CHEMICAL SOCIETY AMERICAN SOCIETY FOR TESTING MATERIAL AMERICAN NATIONAL STANDARDS INSTITUTE AMERICAN SOCIETY FOR QUALITY CONTROL

CABLE ADDRESS "DALAB"

Submitted by: Interpon Powder Coatings Technical Group Leader - Industrial 4150 East 56th St. Cleveland, OH 44105

Attn: Bob Rowles

Date: April 13, 2005

Report No.: 36048 P.O. #4500126529

#### REPORT

#### Sample:

Coated aluminum extrusions Paint: Interpon YM 205U Production Date: Unknown Cure: 15 minutes @ 400°F Pre-treatment: Chromate Drawing: Not Supplied

#### A. Procedure

Submitted sample was tested for information purpose according to AAMA 2604-02 "Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels", Sections 7.1 through 7.8.2, with the following results:

#### **B.** Results

Test		Results	AAMA 2604-02 Specification Requirements
7.1 Color Uniformity		Standard	Standard
7.2 Specular Gloss		20.3	As Reported
7.3 Dry Film Hardness		Pass F	F Hardness and No Film Rupture
7.4 Film Adhesion 7.4.1.1 Dry		Pass	No Removal of Film from Substrate
7.4.1.2 Wet		Pass	No Removal of Film from Substrate
7.4.1.3 Boiling Water		Pass	No Removal of Film from Substrate
7.5 Impact Resistance	DK?	Pass	No Removal of Film from Substrate.

THE ANALYSES OF THE ABOVE SAMPLE OR SAMPLES DO NOT IMPLY AN ENDORSEMENT, THIS REPORT, OR ANY PART THEREOF MAY NOT BE REPRODUCED OR USED FOR ADVERTISING PURPOSES WITHOUT OUR EXPRESS WRITTEN CONSENT.

Interpon Powder Coatings April 13, 2005 Page 2 -Report #36048

<u>. est</u>	Results	AAMA 2604-02 Specification Requirements
7.6 Abrasion Resistance	Pass (ACV = 42)	ACV 20 minimum
7.7 Chemical Resistance		
7.7.1 Muriatic Acid	Pass	No Blistering or Visible Change
7.7.2 Mortar	Pass	No Blistering or Visible Change
7.7.3 Nitric Acid	Pass (ΔΕ = 0.04)	Hunter, Delta E = 5 max.
7.7.4 Detergent	Pass	No Film Adhesion Loss or Visible Change
7.7.5 Window Cleaner Resistance	Pass	No Blistering or Noticeable Change In Appearance and No Film Loss
7.8 Corrosion Resistance		
7.8.1 Humidity	Pass (No blisters)	Not Greater Than Few & No. 8 blisters
7.8.2 Salt Spray Scribe Field	Pass 9 9	7 Minimum Rating 8 Minimum Rating
Date Testing Started: 8-19-04 Date Testing Completed: 4.7.05		

Date Testing Started: 8-19-04 Date Testing Completed: 4-7-05 Date Test Report Expires: N/A

- 511

Testing Conducted At: Dallas Laboratories, Inc., 1323 Wall Street, Dallas, Texas 75215.

The test results indicate that sample tested is in compliance with all of the performance requirements of AAMA 2604-02 for High Performance Organic Coatings on Aluminum Extrusions and Panels, except for Section 7.9 Weathering which must be furnished by the coating supplier for full compliance to AAMA 2604 as specified by AAMA.

DALLAS LABORATORIES, INC.

in

Kevan W. Jones, Vice President

Analyst: GF KWJ:td





Contact person Maria Rådemar Chemistry and Materials Technology +46 10 516 51 65 maria.rademar@sp.se Date Reference **FX118486-2** 



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1(3)

Akzo Nobel Powder Coatings Roger Strömvall c/o International Färg AB Box 44 424 22 ANGERED

#### Emission measurement after 4 weeks

(1 appendix)

#### Object

One sample of a lacquer was supplied to SP by the client. The lacquer arrived applied on stainless steel plates.

Sample marking:

**Interpon D2525** lacquered 2011-10-05 by client 60 – 110 μm 25 x 25 cm, 2 plates 2011-10-11

Date of arrival:

#### Work requested

Emission measurements regarding volatile organic compounds (VOC) including carcinogenic substances (VOC-substances according to EU Directive 67/548/EEC categori 1 and 2) and formaldehyde.

#### Methods

The emission was measured according to SS-EN ISO 16000-10:2006 "Indoor air – Part 10: Determination of the emission of volatile organic compounds from building products and furnishing – Emission test cell method", but only 28 days after application.

Tenax TA was used as adsorption medium for VOC. The Tenax tubes were thermally desorbed and analysed in accordance to ISO 16000-6:2004 (Determination of volatile organic ompounds in indoor and test chamber air by active sampling on Tenax TA sorbent, thermal desorption and gas chromatography using MS/FID), accredited SP method 0601. This means an analysis in a gas chromatograph and detection with a flame ionisation detector (FID) and mass selective detector (MS). The FID signals are used for compound quantification. The total volatile organic compounds (TVOC) means compounds eluting between and including n-hexane to octadecane, having boiling points in the range of about 70-320 °C. The TVOC is quantified in toluene equivalents and includes all compounds  $ca \ge 1 \ \mu g/m^3$ . The mass selective detector is used for identification of single compounds, quantified in compound specific amounts when possible, otherwise in toluene equivalents. Quantification limit for carcinogenic substances is  $0.5 \ \mu g/m^2h$ .

The sampling of formaldehyde was carried out with DNPH samplers. The analysis of the samplers were carried out according to ISO 16000-3:2001 "Indoor air--Part 3:Determination of

#### SP Technical Research Institute of Sweden

Postadress	
SP	
Box 857	
SE-501 15	BORÁS
Sweden	

Besöksadress Västeråsen Brinellgatan 4 SE-504 62 BORÅS Tfn / Fax / E-post +46 10 516 50 00 +46 33 13 55 02 info@sp.se Laboratorier ackrediteras av Styrelsen för ackreditering och teknisk kontroll (SWEDAC) enligt svensk lag. Denna rapport får endast återges i sin helhet, om inte utfärdande laboratorium i förvåg skriftligen godkänt annat.



formaldehyde and other carbonyl compounds – Active sampling method", accredited SP method 2302. This means analysis on a liquid chromatograph with absorbance detector.

The specimens were stored for 22 days in a room with controlled climate conditions of  $23 \pm 2$  °C and  $50 \pm 5$  % RH. One of the test specimens was put into the test cell 24 h prior to air samplings of VOC and formaldehyde. Air samplings were carried out at 2011-11-03,

Test chamber volume	0.000035 m <sup>3</sup>
Area of sample	0.0177 m <sup>2</sup>
Air change rate	171 h <sup>-1</sup>
Area specific air change rate	0.34 m <sup>3</sup> /m <sup>2</sup> h
Temperature	23 ± 1 °C
Relative Humidity	50 ± 5 % RH

Conditions of the test in the FLEC cell:

#### Results

The results are expressed as area specific emission rates:

$$SER_{A} = \frac{Conc \times n}{L}$$

$$SER_{A} = \frac{Conc \times$$

#### Interpon D2525:

Volatile organic compounds	Retention time (min)	CAS number	ID <sup>1</sup>	Emission rate (µg/m <sup>2</sup> h)
<b>TVOC</b> $(C_6 - C_{16})$	5.0 - 36.0		В	< 10
Identified substances:				
No substances identified	÷	-	-	< 2
Carcinogenic substances <sup>2</sup>				<u></u>
No substances identified		1	-	< 0.5
<b>Substances outside VOC</b> (C <sub>6</sub> – C <sub>16</sub> ):				
$\sum$ <b>VVOC</b> ( < C <sub>6</sub> ) <sup>3</sup>	3.5 - 5.0		В	< 10
No substances identified	-	4	-	
$\sum$ <b>SVOC</b> (C <sub>16</sub> - C <sub>22</sub> ) <sup>4</sup>	36.0 - 42.0	4	В	< 10
No substances identified			-	-
Formaldehyde		50-00-0	A	< 2

 $^{\rm I)}$  ID: A = identified compound specific, B = identified as toluene-equivalent



Date Reference 2011-11-18 FX118486-2

Page 3 (3)

- <sup>2)</sup> VOC-substances, according to EU Directive 67/548/EEC categori 1 and 2
- <sup>3)</sup>  $\sum VVOC =$  the sum of very volatile organic compounds, as defined in ISO 16000-6
- <sup>4)</sup>  $\sum$ SVOC = the sum of semi-volatile organic compounds, as defined in ISO 16000-6

Quantification limit for TVOC is 10 µg/m<sup>2</sup>h. Only VOC-compounds with a concentration higher than 2  $\mu$ g/m<sup>2</sup>h are listed in the table (carcinogenic compounds > 0.5  $\mu$ g/m<sup>2</sup>h). Measurement uncertainty for VOC is 15 % (rel) and for formaldehyde 30 % (rel).

See Appendix 1 for gas chromatogram (FID spectra).

#### Summary

The amount of total volatile organic compounds (TVOC) was below quantification limit, that is very low emission.

No single substance was identified, they were all less than 0.5  $\mu$ g/m<sup>2</sup>h.

SP Technical Research Institute of Sweden Chemistry and Materials Technology - Organic Analytical Chemistry Performed by Examined by

Maria Rådemar

Marcus Vestergren

#### **Appendix**

1. Gas Chromatogram

REPORT

Page 1 (1)

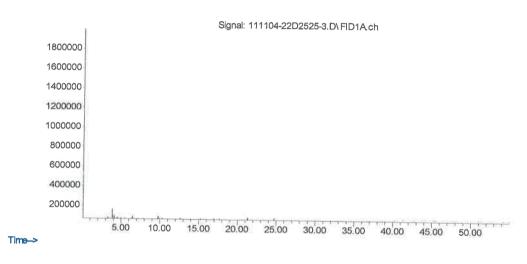


Appendix 1

#### Gas Chromatogram

#### Interpon D2525:

#### Abundance



Compound with retention time 3.9 min is a contamination from analysis system.

Founder, Vice-Chairman & Treasurer Emirates Green Building Council مجلس الأمار ات للأينية الخضراء Habiba Al Marashi Supports the promotion and development of Sustainable Buildings in the United Arab Emirates, and is a Akzo Nobel UAE Paints L.L.C January 2017 – December 2017 Corporate Member This is to certify that مجلس الأمار ات للأبنية الذضر أع Emiratos Green Building Council **EmiratesGBC** of the Saeed AI Abbar Chairman Printed on Recycled Paper

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GALVANNEALED STEEL SHEET IN COILS

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TEL: (041) 351-8313

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Dangjin-ai, Chungcheongnam-do, KOREA

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SPECIFICATION

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MADE IN KOREA

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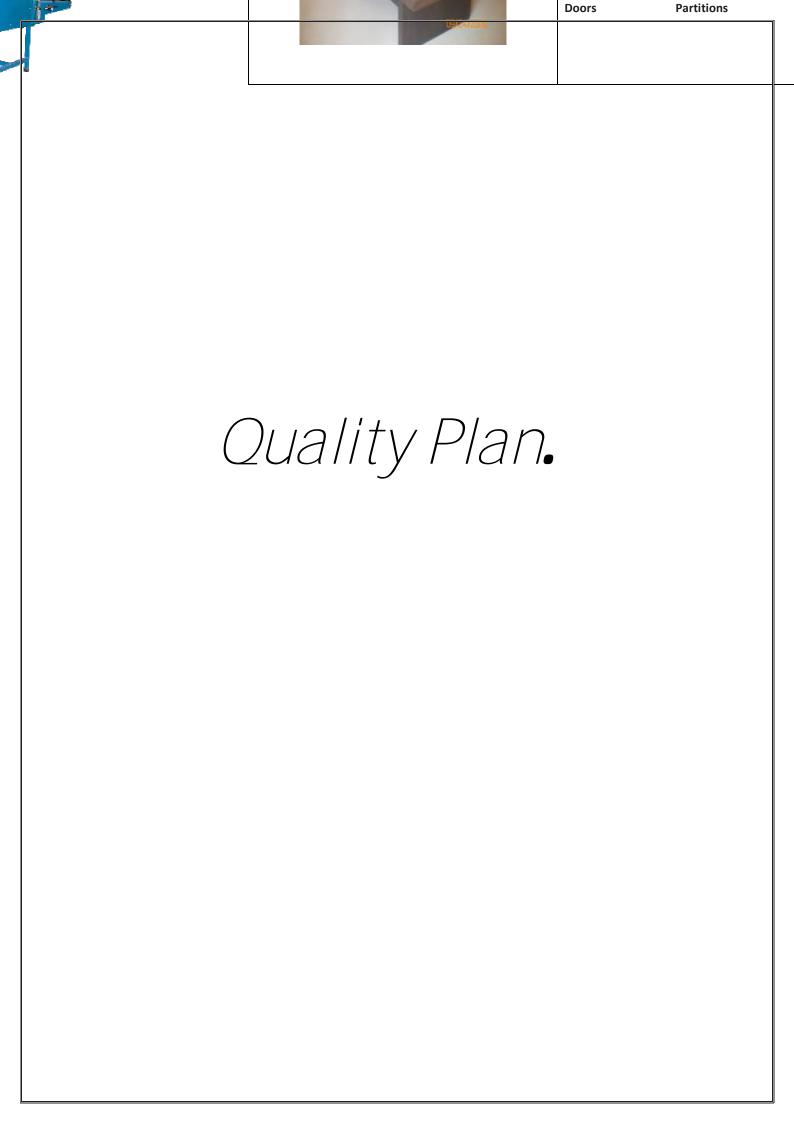
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MADE IN KOREA

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### **QUALITY MANAGEMENT MANUAL**

#### Quality Objectives:

The overall objective of the organization is continuous growth improved business. We understand this can be achieved only if we succeed to meet customer requirements. In order to achieve this primary objective, quality objectives are established at relevant functions. Whenever possible & required, the management has defined measurable objectives to evaluate the system performance at defined intervals. Some of the functional objectives are listed below whereas the other objectives are defined during various management review meetings.

#### Management Representative:

- Plan and execute at least one round of internal quality audits every six months to identify the weakness in procedures and processes.
- ✓ Provide quality system awareness training to all new employees.
- ✓ Provide quality improvement proposal during every management review meeting.
- Review and log all customer feedback and customer complaints, prepare the statistical summary on every six months and report to the Group Director/GM about the trend for effective improvement actions.

#### Customer related process (Sales):

- Sales Manager & Sales Engineers from MEI, BGT and RESOLCO are primary responsible for this operation and the objectives:
- ✓ Improve the business @ 10% every year in overall sales or every section like CLADDING, BAAB, EPS, RESOLCO & BGT doors.
- Develop the business to new heights and technologies, which have wide scope in the market.
- Measure customer satisfaction and action for improvements.

#### Purchasing:

- ✓ Re-evaluate all suppliers to monitor the supplier's performance within acceptable limits.
- Review the purchasing documents to understand the frequently purchased consumables and hence to establish minimum stock level. (To avoid the wastages of resources spend on frequent purchase, inspection and transportation.)

#### Finance & Account:

- ✓ Perform the project costing for all projects and prepare the statistical report to identify the weakness in estimation.
- Prepare the database for potential customers, who settle payments within the stipulated time frame.
- ✓ Settle payment to suppliers on time.

#### Production:

Review all production non-conformances (minor / major) reported during inspection as well as customer complaints to decide upon the process improvements and training requirements of operations staff.

#### Quality Control:

- Analyze the various wastages, set targets for the reduction of wastes.
- Analyze the data of rejections/ failures in final inspection or client inspections on annual basis and define better controls over in process inspection.
- ✓ Quality Objectives has been established for the departments/sections such as Planning, Production, Quality, Sales, Purchase, Stores, Technical, Projects, Dispatch, Administration and Maintenance and is under the control of MR.

# ISO Certificate.

## **CERTIFICATE** AWARDED TO



## **BIN GHURAIR METAL INDUSTRIES L.L.C**

at

P.O.BOX NO: 55686, OFFICE NO: 597-400, BIN GHURAIR, DIP 2, DUBAI, UAE

Quality Registrar Systems certify that the management system of the above organization has been audited and found to be in compliance with the QRS requirements for registration of the management system standard detailed below:

# ISO 9001:2015

**Quality Management Systems** 

Scope of work

MANUFACTURING AND INSTALLATION OF FIRE RATED STEEL DOORS

EA 17 Certificate No: DQU-10724 Originally Registered: 15 MAR 2017 Latest Issue: 25 MAR 2021 Valid up-to: 14 MAR 2023



MANAGING OFFICE ADDRESS: Quality Registrar Systems P.O. Box :26826 United Arab Emirates

**Quality Registrar Systems** 

Tel: +971-2-6714302 Fax: +971-2-6741449 www.qrsyst.com

WORLD WIDE CERTIFICATION

This certificate is the property of Quality Registrar Systems and remains valid subject to satisfactory annual surveillance audit. This certificate is only valid when confirmed by the Register listed in the Quality Registrar Systems (qrsyst.com)



Certificate

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Awarded to



at

P.O. BOX NO: 55686, PLOT NO: 597-400, DUBAI INVESTMENT PARK -2, DUBAI, UAE

Quality Registrar Systems certify that the management system of the above organization has been audited and found to be in compliance with the QRS requirements for registration of the management system standard detailed

below:

## ISO 9001:2015

**Quality Management Systems** 

Scope of work

TRADING OF FIRE RATED STEEL DOORS, SECTIONAL OVERHEAD DOORS, FIRE RATED ROLLING SHUTTERS, FOLDABLE DOORS, FIRE RATED ACCESS DOORS, SLIDING DOORS & RELATED IRONMONGERY

IAF 29 Certificate No: DQU-12398 Originally Registered: 05 DEC 2018 Latest Issue: 05 JAN 2022 Valid up-to: 04 DEC 2024

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MANAGING OFFICE ADDRESS: Quality Registrar Systems P.O. Box :26826 United Arab Emirates



Tel: +971-2-6714302 Fax: +971-2-6741449 www.qrsyst.com

WORLD WIDE CERTIFICATION

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