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You have been awarded:

WH Service Mark 2014 for Partition

Standards: BS 476 Part 22 (1987), EN 1364-1 (2015)

Certificate number: WHI24-29215812

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

Product: Bin Ghurair - forster presto/forster prestoXS - Fully Glazed Fixed Partition - EN 1364-1
Spec ID: 77277
Fire Rating: 2 Hour Fire Rated, 3 Hour Fire Rated, 90 Minute Fire Rated, 60 Minute Fire Rated, 30 Minute Fire Rated
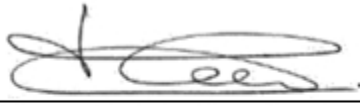*Listing Information:* See following page(s)

Certification body: Intertek Testing Services NA, Inc.
Initial registration: February 29, 2024
Date of expiry: December 31, 2024
Issue status: 1

Authorized By: _____
Jean-Philippe Kayl, Director of Certification

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LISTING INFORMATION

PRODUCT COVERED
Bin Ghurair - forster presto/forster prestoXS - Fully Glazed Fixed Partition - EN 1364-1

PRODUCT DESCRIPTION
Fully Glazed Fixed Partition:

The mullions (vertical members) and transoms (horizontal members) along the perimeter are constructed using "forster presto" - ref: 32.851, 70 x 50mm (wide x depth) or "forster prestoXS" - ref: 36.511, 23 x 50mm (wide x depth) steel profile sections. The intermediate members are constructed using "forster presto" T-section steel profiles - ref: 32.852, 90 x 50mm (wide x depth) or "forster prestoXS" - ref: 36.512, 38 x 50mm (wide x depth) and "forster prestoXS" - ref: 36.502, 33 x 50mm (wide x depth). The mullions and transoms are fixed together through welding.

Note: Please refer to manufacturer's catalogue for full range of profile sections. "forster presto" 60 steel sections (60mm depth) are also allowed.

The partition is glazed with fire rated glass ref: Contraflam Lite 120, 14mm, 16mm or 20mm thick or Contraflam Door Lite, 11mm thick (in single or IGU configurations) from Vetrotech Saint-Gobain International AG using ceramic glazing tape (Forster ref: 948003, 948004, 948005, 948006, 958003, 958004, 958005 or 958006). Intumescent tape (Forster ref: 948017/948000) is self-adhered around the perimeter of the glazing panes. The glazing panes are supported on calcium silicate setting blocks- ref: Flammi 12 (nominal - 5mm thick) or hardwood setting blocks (ref: 970400)and kept in position using steel glazing beads (901248, 901247, 901246, 901228, 901227, 901231, 901226, 901241 or 901245) pressure fitted over studs (Forster ref: 906579) spaced nominally every 300mm c/c. Fire rated silicone sealant (ref: Zwaluw FP) may be applied on the glazing tapes on both exposed and unexposed faces for finishing purpose.

The "forster presto" steel partition applications may also be glazed with fire rated glass ref: Vetroflam 120 IGU (symmetrical/asymmetrical) or Pyroswiss glazing panes from Vetrotech Saint-Gobain International AG. These glazing panes must be installed with Kerafix Flexlit, 5mm x 15mm (w x h), glazing tape between glass and frame/glazing bead profiles with an edge cover of approximately 14±2mm. The glazing panes must be supported on calcium silicate setting blocks- ref: Flammi 12 (nominal - 5mm thick) or hardwood setting blocks (ref: 970400) and kept in position using steel glazing beads pressure fitted over studs (Forster ref: 906579) spaced nominally every 300mm c/c. Partition applications with Pyroswiss glazing must be reinforced internally as per manufacturer's guidelines.

Note: "forster presto" 50 stainless-steel profiles in grade SS304 or SS316 may be used to construct fixed screen assemblies. Please refer to point 4 in **Fire Ratings** section below for more details.

"forster prestoXS" is allowed with fire rated glass ref: Contraflam Lite 120, 14mm, 16mm or 20mm thick or Contraflam Door Lite, 11mm thick (in single or IGU configurations) from Vetrotech Saint-Gobain International AG. The assemblies must use Forster ceramic glazing tapes (Forster ref: 948003, 948004, 948005, 948006, 958003, 958004, 958005 or 958006). Intumescent tape must be self-adhered around the perimeter of the glazing panes with an edge cover of minimum 10mm. The glazing panes must be supported on hardwood (Forster ref: 970400) or calcium silicate setting blocksref: Flammi 12 and kept in position using Forster steel glazing beads pressure fitted over studs (Forster ref: 906579) spaced nominally every 300mm c/c or using screw-fixed L-steel angles.

Metal panels are also allowed to be installed in the "forster presto" or "forster prestoXS" partition assemblies. The metal panels must be constructed as per Forster's instructions with minimum 30mm overall thickness Calcium

Silicate or Fiber Cement Boards (e.g. - Promatect-H boards or Aestuver Fire Stop boards, the required minimum 30mm thickness may be formed using multiple layers of thinner boards - 6 x 5mm, 3 x 10mm, 2 x 15mm, etc.) covered with 1mm-2mm thick steel facing sheets. The panels must rest on calcium silicate setting blocks- ref: Flammi 12 (nominal - 5mm thick) or hardwood setting blocks (ref: 970400) and must be held in place using Forster steel glazing beads according to Forster's instructions.

The "forster presto" and "forster prestoXS steel partition applications may also be glazed with fire rated glass ref: Pyrobel 17N, 17.8mm thick or Pyrobel-T 16mm thick from AGC Glass Europe, using ceramic glazing tape (Forster ref: 948003, 948004, 948005, 948006, 958003, 958004, 958005 or 958006). Intumescent tape (Forster ref: 948017/948000) is self-adhered around the perimeter of the glazing panes. The glazing panes are supported on calcium silicate setting blocks- ref: Flammi 12 (nominal - 5mm thick) or hardwood setting blocks (ref: 970400)and kept in position using steel glazing beads (901248, 901247, 901246, 901228, 901227, 901231, 901226, 901241 or 901245) pressure fitted over studs (Forster ref: 906579) spaced nominally every 300mm c/c.

FIRE RATINGS
The fully glazed fixed partition system qualifies for the following ratings according to EN 1364-1:2015: Fire resistance tests for non-load bearing elements - Part 1: Walls

1. Steel Partition with Contraflam Door Lite & Contraflam Lite 120 (single or IGU) glazing panes:

EN 1364-1	Ratings
Integrity (E)	180 minutes
Heat Radiation (W)	120 minutes

Maximum Application size for E 180 rating -
Maximum height: 3000mm, Maximum width: Infinite

Maximum Application size for EW 120 rating -
Maximum height: 3600mm, Maximum width: Infinite

Contraflam Lite 120 (single or IGU) glazing pane sizes -
Single Glazed Units:
　　　Maximum width – 2354mm, at 2939mm height
　　　Maximum height – 3528mm, at 1961mm width
　　　Maximum area – 6.92 m^2

Double Glazed Units:
　　　Maximum width – 1735mm, at 2933mm height
　　　Maximum height – 3493mm, at 1457mm width
　　　Maximum area – 5.09 m^2

Double Glazed Units for up to 60 Minutes fire rating:
　　　Maximum width – 2354mm, at 2939mm height
　　　Maximum height – 3528mm, at 1961mm width
　　　Maximum area – 6.92 m^2

Contraflam Lite 120, 20mm thick (single) glazing pane sizes - E120 or EW 90 rating.
　　　Maximum width – 2300mm, at 3130mm height*
　　　Maximum height – 3600mm, at 2000mm width*

Maximum area – 7.2 m^2*
* Production size limitations, if lower, will apply as per glass manufacturer's instructions

For EW 120 fire rating Contraflam Door Lite, 11mm thick glazing (in single or IGU configurations) is allowed in maximum size of 1164mm x 2244mm (w x h) or 978mm x 2670mm (w x h), maximum area - 2.61 sq. m.

2. "forster presto" Steel Partition with Vetroflam 120 IGU (symmetrical/asymmetrical) glazing panes:

Glazing*	Fire Rating	Maximum Application Size	Maximum Glass Size
Vetroflam 120 IGU glazing panes, with minimum 8mm thick Vetroflam glass pane in IGU configurations	120 Minutes Integrity (E) and 60 Minutes Radiation Control (W) Rating	Maximum height: 3000mm Maximum width: Infinite	Maximum width: 1200mm (at 2300mm height) Maximum height: 2300mm (at 1300mm width) Maximum area: 2.76 sq. m
Vetroflam 120 IGU glazing panes, with minimum 8mm thick Vetroflam glass pane in IGU configurations	90 Minutes Integrity (E) and 30 Minutes Radiation Control (W) Rating	Maximum height: 3600mm Maximum width: Infinite	Maximum width: 1440mm (at 2300mm height) Maximum height: 2760mm (at 1300mm width) Maximum area: 3.34 sq. m
Vetroflam 120 IGU glazing panes, with minimum 6mm thick Vetroflam glass pane in IGU configurations	120 Minutes Integrity (E) and 60 Minutes Radiation Control (W) Rating	Maximum height: 3000mm Maximum width: Infinite	Maximum width: 1250mm (at 1250mm height) Maximum height: 1250mm (at 1250mm width) Maximum area: 1.56 sq. m
Vetroflam 120 IGU glazing panes, with minimum 6mm thick Vetroflam glass pane in IGU configurations	120 Minutes Integrity (E) and 30 Minutes Radiation Control (W) Rating	Maximum height: 3300mm Maximum width: Infinite	Maximum width: 1375mm (at 1250mm height) Maximum height: 1375mm (at 1250mm width) Maximum area: 1.72 sq. m
Vetroflam 120 IGU glazing panes, with minimum 6mm thick Vetroflam glass pane in IGU configurations	90 Minutes Integrity (E) and 30 Minutes Radiation Control (W) Rating	Maximum height: 3600mm Maximum width: Infinite	Maximum width: 1500mm (at 1260mm height) Maximum height: 1500mm (at 1260mm width) Maximum area:1.89 sq. m

* Please note that the partition applications with asymmetrical Vetroflam 120 IGU glazing panes can be only used for unidirectional fire protection with Vetroflam glazing installed on the unexposed side. For bi-directional fire protection requirements, symmetrical Vetroflam 120 IGU glazing panes must be used according to glazing manufacturer's instructions.

3. "forster presto" Steel Partition with Pyroswiss glazing panes:

Glazing	Fire Rating	Maximum Application Size	Maximum Glass Size
6mm thick Pyroswiss**	60 Minutes Integrity (E) Rating	Maximum height: 3600mm Maximum width: Infinite	Portrait Sizes - Maximum width: 1560mm (at 2320mm height) Maximum height: 2760mm (at 1311mm width) Maximum area: 3.62 sq.m Landscape Sizes – Maximum width: 1831mm (at 1130mm height) Maximum height: 1343mm (at 1541mm width) Maximum area: 2.07 sq.m
Pyroswiss IGU and Pyroswiss Stadip***	30 Minutes Integrity (E) Rating	Maximum width: 1300mm (at 2300mm height) Maximum height: 2300mm (at 1300mm width) Maximum area: 2.99 sq. m	Maximum width: 1200mm (at 2200mm height) Maximum height: 2200mm (at 1200mm width) Maximum area: 2.64 sq.m

**glazing pane thickness may be increased up to 15mm.
*** Stadip refers to laminated glazing as per manufacturer's product terminology

4. "forster presto" Stainless-Steel Fixed Screen with Pyroswiss/ Contraflam Lite 120 (Single or IGU)/ Contraflam Door Lite (Single or IGU) glazing panes:

Glazing	Fire Rating	Maximum Application Size	Maximum Glass Size
Pyroswiss (single glazing only)	30 Minutes Integrity (E) Rating	Maximum Width: 1914mm at 3641mm height Maximum Height: 4314mm at 1625mm width Maximum Area: 7.01 sq. m	Maximum Width: 1800m at 3527mm height Maximum Height: 4200n at 1511mm width Maximum Area: 6.35 sq.
Contraflam Lite 120 (single or IGU configurations)	30 Minutes Integrity (E) and Radiation Control (W) Rating	Maximum Width: 1910mm at 3637mm height Maximum Height: 4310mm at 1621mm width Maximum Area: 6.98 sq. m	Maximum Width: 1800m at 3527mm height Maximum Height: 4200n at 1511mm width Maximum Area: 6.35 sq.
Contraflam Door Lite (single or IGU configurations)	30 Minutes Integrity (E) and Radiation Control (W) Rating	Maximum Width: 1910mm at 3637mm height Maximum Height: 4310mm at 1621mm width Maximum Area: 6.98 sq. m	Maximum Width: 1200m at 2400mm height Maximum Height: 2400n at 1200mm width Maximum Area: 2.88 sq.
Contraflam Lite 120 (single or IGU configurations)	60-120 Minutes Integrity (E) and Radiation Control (W) Rating	Maximum Width: 1368mm at 2580mm height Maximum Height: 3096mm	Maximum Width: 1258m at 2470mm height Maximum Height: 2986n

		at 1140mm width Maximum Area: 3.529 sq. m	at 1030mm width Maximum Area: 3.10 sq.
Contraflam Door Lite (single or IGU configurations)	60-120 Minutes Integrity (E) and Radiation Control (W) Rating	Maximum Width: 1368mm at 2580mm height Maximum Height: 3096mm at 1140mm width Maximum Area: 3.529 sq. m	Maximum Width: 1200m at 2400mm height Maximum Height: 2400m at 1200mm width Maximum Area: 2.88 sq.

- Contraflam Door Lite/Contraflam Lite 120 (single or IGU configurations) glazing panes must be installed using Kerafix 2000 glazing tape between glass and frame/glazing bead profiles with an edge cover of approximately 15mm. 2mm thick intumescent strip must be adhered to the glazing perimeter as per manufacturer's instructions.
- Pyroswiss (single configurations only) glazing panes must be installed with Kerafix Flexlit glazing tape between glass and frame/glazing bead profiles with an edge cover of approximately 13±2mm.
- The glazing panes must be supported on setting blocks- ref: Flammi 12 (nominal - 5mm thick) and kept in position using stainless-steel glazing beads pressure fitted over studs (Forster ref: 906579) spaced nominally every 300mm c/c and also fixed using M4x35mm stainless steel screws spaced nominally at 500mm c/c (minimum 2 screws per bead).
- Transom and mullion members may be added in the applications to meet the glazing size restrictions or for reduced glazing pane sizes as per application requirements.
- Contraflam Lite 120 fire rated glazing panes manufactured using Diamant® glass panes can be used in "forster presto" steel or stainless-steel partition assembly for 120-Minute Integrity (E 120) fire rating.

5. "forster prestoXS" partition assembly:

Glazing	Fire Rating	Maximum Application Size	Maximum Glass Size
Contraflam DoorLite, Contraflam Lite 120 (Single/IGU configurations)	120 Minutes Integrity (E) and Radiation Control (W) Rating	Maximum height: 3600mm, Maximum width: Infinite	Maximum Width: 1800m at 2978mm height Maximum Height: 1500m at 3574mm width Maximum Area: 5.36 sq.

6. "forster presto" and "forster prestoXS" Steel Partition Applications with metal panels:

S. No.	Fire Rating (E)	Panel Construction	Maximum Panel Size
1	30 minutes – 60 minutes	Minimum 30mm thick Calcium Silicate Boards covered with 1mm-2mm thick steel facing sheets.	Maximum width: 2069mm (at 1384mm height) Maximum height: 2069mm (at 1384mm width) Maximum area: 2.86 m^2
2	90 minutes – 120 minutes	Minimum 30mm thick Calcium Silicate Boards covered with 1mm-2mm thick steel facing sheets.	Maximum width: 1724mm (at 1154mm height) Maximum height: 1724mm (at 1154mm width) Maximum area: 1.99 m^2
3	90 minutes – 120 minutes	Minimum 36mm thick Calcium Silicate Boards covered with 1mm-2mm thick steel facing sheets..	Maximum width: 2400mm (at 1200mm height) Maximum height: 2400mm (at 1200mm width)

			Maximum area: 2.88 m^2

7. "forster presto" and "forster prestoXS" Steel Partition with Pyrobel 17N/ Pyrobel-T glazing panes:

Glazing	Fire Rating	Maximum Application Size	Maximum Glass Size
Pyrobel 17N, 17.8mm thick glazing pane	60 Minutes Integrity (E) and 60 Minutes Radiation Control (W) Rating	Maximum height: 3000mm Maximum width: Infinite	1750mm width (at 1000mm height) 1000mm height (at 1750mm width) Area: 1.75 sq. m or 1100mm width (at 2890mm height) 2890mm height (at 1100mm width) Area: 3.18 sq.m
Pyrobel-T, 16mm thick glazing pane	120 Minutes Integrity (E) and 60 Minutes Radiation Control (W) Rating	Maximum height: 3600mm Maximum width: Infinite	1698mm width (at 2914mm height) 3468mm height (at 1427mm width) Maximum area: 4.95 sq. m
Pyrobel-T, 16mm thick glazing pane	120 Minutes Integrity (E) and 90 Minutes Radiation Control (W) Rating	Maximum height: 3000mm Maximum width: 3000mm	1415mm width (at 2890mm height) 2890mm height (at 1415mm width) Maximum area: 4.09 sq. m