

# DORTEK SPECIFICATION SHEET

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## Part 1 - General

### 1.1 Sections include

- A. Swing Fire rated Molded Fiberglass Composite Door
- B. Swing Fire rated Molded Fiberglass Composite Frame

### 1.2 Related Sections

- A. Division 1 – General Conditions, Supplementary conditions
- B. Division 4 – Unit Masonry
- C. Division 8 – Finish Hardware
- D. Division 8 – Glass Glazing

### 1.3 Quality Assurance

#### A. General Qualifications

1. Manufacture Qualifications: DorteK hat specializes in manufacturing Molded Fiberglass Composite doors and Frames with a minimum of 45 years experience.
2. Quality Assurance: All Molded Fiberglass Composite doors and Frames are manufactured by DorteK to ensure consistent high quality.
3. Quality Assurance: Hardware and accessories for all Molded Fiberglass Composite door and Molded Fiberglass Composite frames shall exactly adhere to the Architects specification.
4. Quality Assurance: Glass for windows and doors shall be furnished per the Architects instructions and specifications.

#### B. Regulatory Requirements

1. Fire rated doors and frame construction conforms to fire standards of American UL10C, British BS476:22, European EN1634-1, Singapore SS332, China GB12955, CSTB, Australian & New Zealand AS 1905.1.
2. Laminate tested to ASTM D256 Izod impact test.
3. ASTM D790 Flexural Strength.
4. ASTM D638 Tensile strength.
5. ASTM D543 Evaluation of Plastics to chemical reagents.
6. ASTM D570 Water absorption.
7. ASTM D1308 effect of chemicals.
8. Acoustic doors tested to BS EN ISO 140-3.
9. Hinges certified to BS EN 1935 which include testing for Static load, shear, Endurance, Corrosion, Fire door and Burglary. ANSI 157-1 & 7, UL10C & cUL10C.
10. Locks, cylinder, latch and Lever certified to SS 332:2007 durability testing to 200'000 test cycles to BS EN 12209.
11. Door Closers tested to EN1154 & BS 476 part 22, production surveillance ISO9002 & CERTIFIRE and SS 332:2007 durability testing 500'000 test cycles.
12. Mineral Fire door core is tested to EN 323 (Density), EN310 (Bend strength), EN319 (Tensile strength), EN317 (Water Absorption), EN222 (rest Moisture), ISO 1182 (Non combustible). AAMA 1503-09 Thermal performance.

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8. Polyisocyanurate CFC/HCFC free rigid foam insulation has been tested to ASTM E 84 and has a flame spread index of under 35. AAMA 1503-09 Thermal performance U-value 0.53.
9. Resin is tested to Class 1 fire rating BS476 Part 7 & part 6 and M1 rating also French M1 rating to NFP 92-501 fire testing. Tensile strength / Modulus and Elongation are tested to BS EN ISO 527-4:1997, Flexible strength / modulus is tested to BS EN ISO 14125:1998: Notched Izod Impact is tested to BS EN ISO 180:2001. Heat deflection temperature to BS EN ISO 75 and 306. Compression strength and Modulus BS EN ISO 604. BARCOL - ASTM D-2583.
10. Concrete fire core is certified under CE marking ETA-11/0458, A1 class fire rating under EN13501-1, Thermal conductivity UB T1 275 & UB T1 289. AAMA 1503-09 Thermal performance U-value 0.53.

## C. Warranty

The door blade to include ten (10) years free from defects in material and workmanship from date of shipment and lifetime from corrosion from date of shipment, provided that the structural integrity of the doors blade have not been violated or compromised, subject to terms and conditions as detailed on the Dortek Website ([www.dortek.com](http://www.dortek.com)).

## 1.4 Submittals

- A. Shop drawings include the following
  1. Elevation of each door including door size, handing
  2. Locations of all hardware
  3. Internal reinforcement
  4. Frame configuration, anchor position & spacing
- B. Product data including manufactures literature, fabrication descriptions and installation instructions
- C. Construction and/or color samples as requested

## 1.5 DELIVERY, STORAGE AND PROTECTION

- A. Doors and frames can be individually packaged in recyclable cardboard cartons or palletised. Cartons & pallets will be clearly labelled with project information and will include fixing/fasteners and installation instructions, if required. Only remove cardboard cartons upon arrival if cartons are wet or damaged.
- B. Deliver and store doors and frames at the job site in such a manner as to prevent damage; out of weather and/or extreme temperatures. The doors that are individually packaged shall only be stored in the horizontal position and not more than 4 doors high with nothing left on top of them.
- C. All damaged or otherwise unsuitable doors and frames, when so ascertained shall be immediately removed from site.

## PART 2 – PRODUCTS

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## 2.1 ACCEPTABLE MANUFACTURERS

Only products that are manufactured by DorteK manufacturing facilities are acceptable. No substitutions may be considered.

## 2.2 Molded Fiberglass Composite Doors

### A. Door fabrication

1. Total door thickness to be a nominal 1.57 inches (40mm) thick
2. Leading, hanging, top & bottom edges of door leaf to be radiused
3. Provides doors with a completely seamless construction on all six (6) surface

### B. Outer surface shell

1. The Molded Fiberglass Composite laminate that envelope all 6 sides of the door blade are produced as one unbroken piece around the core. This produces a single, solid, homogenous, void free door blade. The Molded Fiberglass Composite shall be manufactured using a corrosion resistant color saturated resin system in addition to a fire rated pigmented gelcoat exterior finish. The resin shall be reinforced with glass fibre 50% average weight for enhanced strength. The thickness of the Molded Fiberglass Composite laminate shall be a minimum of 0.078 inches (2.0mm) thick. The outer surface shall be any color that the Architect chooses and this color will extend throughout the laminate thickness not just the fire rated gelcoated surface.
2. The Molded Fiberglass Composite door requires no stiles or rails as the door is produced in one solid void free homogenous unit.
3. Recycled Aluminium reinforcement is placed wherever fixings are required into the door.

### C. Core Options

#### 1. Mineral Fire core

- A. 1.37 inch (35mm) thick rigid block of Vermiculite shall be moulded with the face sheets of all BS & EN rated Fire doors.
- B. To be used for 30min, 60min, 90min, 120min & 240min for EN regulated jurisdictions.
- C. No wood or other organic material that will harbor and promote bacteria is permitted in any part of the doorset.

#### 2. Concrete Fire core

- A. 1.37 inch (35mm) thick rigid block of glass fibre impregnated concrete shall be moulded with the face sheets of all UL rated doors.
- B. To be used for 30min and 60min fire doors for all UL accredited jurisdictions
- C. No wood or other organic material that will harbor and promote bacteria is permitted in any part of the doorset.

### D. Hardware Preparations:

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1. Doors shall be reinforced with recycled inorganic aluminium in accordance with the hardware schedule, hardware manufactures instructions and templates
2. Holes will be drilled & tapped for fully mortise Butt hinges by the factory
3. All hardware shall be attached / installed by DorteK employees or contractors that have been trained directly by DorteK.

## **E. Door Accessories**

1. Glazing: Flush mounted Glazing shall ensure that the glass is hygienic without any voids or edges for bacteria to lodge and is weather sealed as not to permit moisture.
2. Transoms: All transom panels will be identical to the doors in construction, materials, thickness, color and reinforcement.
3. Rebate for pairs of doors will be stainless steel of manufacturer's standard flat design or silver anodised aluminium.

## **2.3 Molded Fiberglass Composite Frames**

**A. Fabrication:** Molded Fiberglass Composite frames are also produced as one homogenous void free piece. The frames shall be rigid, neat in appearance, free from defects and the finish shall match the doors. Fabrication of DorteK Molded Fiberglass Composite doors and frames shall be shown on the drawings and in accordance with best shop practices. Field measurements shall be taken as required for coordinating with adjoining work.

1. Provide frames for doors, transoms and windows as required
2. All frames shall be Molded Fiberglass Composite with an average 50% glass content by weight
3. Head and Jam members shall be standard 45degree mitre, providing neatly mitred corner connection, fabricated for field assembly (optional: one piece frame, resin bonded and assembled at factory)

## **B. Reinforcements and brace supports**

1. Frames shall be reinforced with inorganic recycled aluminium and mortised for hardware in accordance with the hardware schedule, manufacturer's instructions & templates.
2. Anchoring systems – Furnish at least three (3) anchors in each jamb of frames up to 96.06 inches (2440mm) high and additional anchors as required in shapes, sizes and spacing shown.

## **2.4-Finish**

- A. Seamless fire rated gelcoat, Dp1 mill finish with draw lines in the vertical selected by Architect, from manufactures full range of colors
- B. Finish on doors and frame units will match
- C. Alternative frames are available in stainless steel grade 304 and Aluminium

## **PART 3 – EXECUTION**

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## **3.1- INSPECTION**

Installer shall examine the substrate and conditions under which Molded Fiberglass Composite work is to be installed and notify the general contractor of any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the installer.

## **3.2 – INSTALLATION**

Doors and frames will be delivered in individual cartons with identifying mark number listed on each carton. Alternatively large amount of doors may be delivered on pallets with identifying mark numbering on each door & frame on the pallet.

Install Molded Fiberglass Composite doors, frames and accessories in accordance with DorteK instructions and final shop drawings.

Provide clearance for doors of 0.078 inch (2mm) at jams and heads.

Fire labelled doors, frames and accessories must be installed by qualified installers.

## **3.3 – ADJUSTING**

At substantial completion, adjust all operable components to ensure proper installation. Doors shall function smoothly and swing freely without binding. Doors without closers shall remain open at any angle without being affected by gravitational influence.

## **3.5 – CLEANING**

Remove dirt and excess sealant from exposed surfaces. Follow the manufacturer's recommended cleaning techniques and procedures for cleaning all surfaces. Only use cleaning products that will not scratch or damage the surfaces and are recommended by the DorteK.