

Technical Data Series

Tech 302

Polyurethane Doors

(Polyisocyanurate Doors)



MPI
CUSTOM STEEL DOORS & FRAMES

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MPI uses a polyisocyanurate slab in place core for our polyurethane style doors. Typically polyurethane is a foamed in place application as the slab form is very brittle and unstable. Polyisocyanurate offers many benefits over it's polyurethane counterpart, such as: stable rigid form, resistance to water and solvents, higher temperature stability, and resistance to burning.

Industry Standards	HMMA 867 Laminated Core Hollow Metal Door ANSI A250.6 Recommended Practice for Hardware Reinforcing ANSI A250.8/SDI 100 Specifications for Standard Steel Doors & Frames ANSI A250.10 Test Procedure & Acceptance Criteria for Prime Painted Steel
Size	Maximum Size: 3'-6" X 8'-0" Nominal Actual Width = Nominal - 1/4" Actual Height = Nominal - 3/4" (5/8" undercut)
Core	Rigid Pre-Formed Closed Cell Polyisocyanurate (polyurethane) Board 2 lb PCF Density Average Conforms to ASTM D2856 Core U-Factor = 0.100, R-Value = 10.0
Face Skin Options	18 Gauge (0.042 min) - ANSI A250.8/SDI 100 Level 2 (Standard Duty) 16 Gauge (0.053 min) - ANSI A250.8/SDI 100 Level 3 (Heavy Duty) 14 Gauge (0.067 min) - ANSI A250.8/SDI 100 Level 4 (Extra Heavy Duty)
Material Type	Cold Rolled Steel - ASTM A1008 A60 Galvannealed - ASTM A653 G90 Galvanized - ASTM A653 (not recommended) Stainless Steel Type 304/316 with #4 Finish
Edge Type	Bevel Hinge & Lock Edge - 1/8" over 2" (Standard) Square Edge (optional)
Edge Seam	Seamless - Bondo (Standard) - ANSI A250.8/SDI 100 Model 2 Seamless - Continuous Welded (Optional) - ANSI A250.8/SDI 100 Model 2 Open Seam (Optional) - ANSI A250.8/SDI 100 Model 1
Top Channel	16 Gauge (0.053 min) Inverted (standard), Flush (optional), Water Tight Seal (optional) Projection Welded
Bottom Channel	16 Gauge (0.053 min) Inverted (standard), Flush (optional) Projection Welded Weep Hole Provided
STC Rating	STC 28-30 Consult Tech 403 for Additional Data
Fire Rating	Not Able to Fire Rate
Thermal Values	Flush 18 Gauge Door - R-Value = 2.75, U-Factor = 0.36 Flush 16 Gauge Door - R-Value = 2.66, U-Factor = 0.38 ASTM C1363, ASTM E1423, ASTM EC1199, SDI 113
Warranty	One Year (365 days) from the date of delivery
Reinforcements	Hinge 7 Gauge (0.167 min) Cylindrical Lock (Govt 161) 16 Gauge (0.053 min) Mortise Lock (Govt 86) 11 Gauge (0.108 min) Flush Bolts 11 Gauge (0.108 min) Surface Bolts 14 Gauge (0.067 min) Surface Closer 14 Gauge (0.067 min) Surface Holder/Stop 14 Gauge (0.067 min) Pull Plates/Bars 14 Gauge (0.067 min) Surface Applied Exit Devices 14 Gauge (0.067 min) Pivots 7 Gauge (0.167 min)

