

AF 100 ALL FIBERGLASS DOOR TEST RESULTS

Door Panel
Thermal Transmittance, ASTM-C1363-11:
U-Factor = 0.13 Btu/hr-ft ² -°F, R-Value = 7.42 hr-ft ² -°F/Btu
AF-150 Framing
Tensile Strength, ASTM-D638: 15,900 psi
Tensile Modulus of Elasticity, ASTM-D638: 1.58 x 10 ⁶ psi
Maximum Compressive Strength, ASTM-D695: 15,500 psi
Compressive Modulus of Elasticity, ASTM-D695: 6.7 x 10 ⁵ psi
Flexural Strength, ASTM-D790: 39.3 x 10 ³ psi
Flexural Modulus, ASTM-D790: 1.23 x 10 ⁶ psi
Izod Impact, ASTM-D256: 8.1 ft-lb/in
Barcol Hardness, ASTM-D2583: 57
Specific Gravity, ASTM-D792: 1.45 @ 23 °C
Density, ASTM-D792: 1445.6 kg.m ³ @ 23 °C
Coefficient of Linear Expansion, ASTM-D696: 1.26 x 10 ⁻⁵ in/in/°F
Short Beam Strength, ASTM-D2344: 3,980 psi
Fastener Withdrawal, ASTM-D1761: 924 lbs
Percent Fiberglass: 60%
Door and AF-150 Frame Assembly
Physical Endurance, AAMA 920-11:
2,000,000 Cycles, No Damage
Thermal Transmittance, NFRC 100
<i>Opaque Swinging Door (< than 50% glass)</i>
U-Factor = 0.23 Btu/hr-ft ² -°F
<i>Commercially Glazed Swinging Entrance Door (> than 50% glass)</i>
U-Factor = 0.41 Btu/hr-ft ² -°F
Air Leakage, NFRC 400, ASTM-E283
<i>Opaque Swinging Door (< than 50% glass)</i>
0.03 cfm/sqft @ 1.57 psf
0.06 cfm/sqft @ 6.24 psf
<i>Commercially Glazed Swinging Entrance Door (> than 50% glass)</i>
0.02 cfm/sqft @ 1.57 psf
0.05 cfm/sqft @ 6.24 psf
STC and OITC, ASTM-E90:
STC = 30, OITC = 28
Structural Performance, ASTM E-330
<i>Single Door, 3'0" x 7'0" overall size, single point latching</i>



± 180 psf design pressure, pass
Structural Performance, ASTM E-330
<i>Single Door, 3'0" x 7'0" overall size, single point latching</i>
± 100 psf design pressure, pass
Impact and Cycle Test, ASTM-E1886
<i>Single Door, 3'0" x 7'0" overall size, single point latching</i>
9 lbs. missile @ 50 fps, minimum 2 impacts, no rips, tears, or penetrations
± 100 psf design pressure, pass
Forced Entry, AAMA 1304
<i>Single Door, 3'0" x 7'0" overall size, single point latching</i>
300lb Pull Test, pass
Blast Test, ASTM-F1642
6.9 psi @ 48 psi-msec, no hazard, GSA performance condition 2