

AF-220 ALL FIBERGLASS DOOR TEST RESULTS

AF-150 Framing
Tensile Strength, ASTM-D638: 15,900 psi
Tensile Modulus of Elasticity, ASTM-D638: 1.58×10^6 psi
Maximum Compressive Strength, ASTM-D695: 15,500 psi
Compressive Modulus of Elasticity, ASTM-D695: 6.7×10^5 psi
Flexural Strength, ASTM-D790: 39.3×10^3 psi
Flexural Modulus, ASTM-D790: 1.23×10^6 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: 1.26×10^{-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
PP Polypropylene Honeycomb Core
Thermal Transmittance, NFRC 100
<i>Opaque Swinging Door (< than 50% glass)</i>
U-Factor = 0.29 Btu/hr-ft ² -°F
<i>Commercially Glazed Swinging Entrance Door (> than 50% glass)</i>
U-Factor = 0.46 Btu/hr-ft ² -°F
Air Leakage, NFRC 400, ASTM-E283
<i>Opaque Swinging Door (< than 50% glass)</i>
0.07 cfm/sqft @ 1.57 psf
0.03 cfm/sqft @ 6.24 psf
<i>Commercially Glazed Swinging Entrance Door (> than 50% glass)</i>
0.05 cfm/sqft @ 1.57 psf
0.08 cfm/sqft @ 6.24 psf
STC and OITC, ASTM-E90:
STC = 32, OITC = 27
Impact Test, TAS 201
<i>Single Door, 3'4" x 6'11" overall size, 1-point latching</i>
9 lbs. missile @ 50 fps, minimum 3 impacts, no rips, tears, or penetrations
Static Air Pressure, TAS 202
<i>Single Door, 3'4" x 6'11" overall size, 1-point latching</i>
± 75 psf design pressure, pass
Cyclic Wind Pressure Loading, TAS 203
<i>Single Door, 3'4" x 6'11" overall size, 1-point latching</i>



± 75 psf design pressure, pass
Expanded Polystyrene Core
Thermal Transmittance, NFRC 100
<i>Opaque Swinging Door (< than 50% glass)</i>
U-Factor = 0.28 Btu/hr·ft ² ·°F
<i>Commercially Glazed Swinging Entrance Door (> than 50% glass)</i>
U-Factor = 0.45 Btu/hr·ft ² ·°F
Air Leakage, NFRC 400, ASTM-E283
<i>Opaque Swinging Door (< than 50% glass)</i>
0.09 cfm/sqft @ 1.57 psf
0.17 cfm/sqft @ 6.24 psf
<i>Commercially Glazed Swinging Entrance Door (> than 50% glass)</i>
0.02 cfm/sqft @ 1.57 psf
0.04 cfm/sqft @ 6.24 psf
STC and OITC, ASTM-E90:
STC = 30, OITC = 29