EDGEWATER DOOR

Physical Properties Data

Physical Properties

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Door Face Sheet Physical Properties

Property	Test Method	Unit	Class C General Purpose Result	Class A Fire Retardent Result	Approvals and Certifications
Flexural Strength	ASTM D-790	PSI	17,000	10,000	• Meets USDA/FSIS requirements • Canadian Food Inspection Agency (CFIA) accepted • ICC: Report # ER-2364 • ASTM D-3841-2001 • Fire Ratings: Face sheet products are available on multiple fire ratings, such as Class C (general purpose) and Class A (fire retardant).
Flexural Modulus	ASTM D-790	PSI	6.0×10^5	3.1×10^5	
Tensile Strength	ASTM D-638	PSI	8,000	7,000	
Tensile Modulus	ASTM D-638	PSI	9.43×10^5	3.1×10^5	
% Elongation	ASTM D-638	%	1.20	1.80	
Water Absorption 21°C @ 72 hrs.	ASTM D-570	%	0.17	0.72	
Izod Impact Strength	ASTM D-256	ft.-lbs. /in.	7.0	7.16	
Coefficient of Linear Thermal Expansion	ASTM D-696	in./in. /°F	2.22×10^{-5}	2.39×10^{-5}	
Barcol Hardness	ASTM D-2583	Avg.	30	35	
Specific Gravity	ASTM D-792	N/A	1.614	1.574	
Abrasion Resistance	TABER	% WT Loss	0.293	0.391	
Flash Ignition Temp.	ASTM 1929	°C	430	400	
Self Ignition Temp.	ASTM 1929	°C	450	430	
Flame Spread	ASTM E-84	N/A	≤ 200	≤ 25	
Smoke Generation	ASTM E-84	N/A	< 450	< 450	

Door Stile and Rail Material Physical Property

.75" Thickness Property	Unit	Value	1.5" Thickness Property	Unit	Value
Tensile Strength	PSI	5330	Tensile Strength	PSI	1760
Tensile Modulus	PSI	281×10^3	Tensile Modulus	PSI	155×10^3
Compressive Strength	PSI @ 2.5% Strain	538	Compressive Strength	PSI	553
Compressive Modulus	PSI	21.8×10^3	Compressive Modulus	PSI	22.4×10^3
Flexural Strength	PSI	6110	Flexural Strength	PSI	4250
Flexural Modulus	PSI	502×10^3	Flexural Modulus	PSI	360×10^3
Density	$lbs./ft^3$	26	Density	$lbs./ft^3$	24
24 hr. Water Absorption	% Max	<1	24 hr. Water Absorption	% Max	<1
Thermal Resistance	R-Value	1.7	Thermal Resistance	R-Value	3.1

Frame Material Physical Properties

Property	Test Method	Direction	Unit	Polyglass F	Polyglass M
Mechanical Coupon					
Ultimate Tensile Strength	ASTM D-638 ASTM D-638	Longitudinal Transverse	PSI PSI	30,000 6,500	30,000 8,500
Tensile Modulus	ASTM D-638 ASTM D-638	Longitudinal Transverse	PSI PSI	2.5×10^6 0.8×10^6	2.5×10^6 0.8×10^6
Ultimate Compressive Strength	ASTM D-695 ASTM D-695	Longitudinal Transverse	PSI PSI	30,000 15,000	30,000 15,000
Compressive Modulus	ASTM D-695 ASTM D-695	Longitudinal Transverse	PSI PSI	2.3×10^6 0.8×10^6	2.3×10^6 0.8×10^6
Ultimate Flexural Strength	ASTM D-790 ASTM D-790	Longitudinal Transverse	PSI PSI	30,000 10,000	30,000 10,000
Flexural Modulus	ASTM D-790 ASTM D-790	Longitudinal Transverse	PSI PSI	1.6×10^6 0.8×10^6	1.6×10^6 0.8×10^6
Shear Strength Short Beam	ASTM D-2344 ASTM D-2344	Longitudinal Transverse	PSI PSI	4,500 4,500	4,500 4,500
Impact Strength Izod	ASTM D-256 ASTM D-256	Longitudinal Transverse	ft.-lbs./in. ft.-lbs./in.	25 4	25 4
Hardness - Barcol	ASTM D-2583	Perpendicular		50	50
Mechanical - Full Section Bending					
Modulus of Elasticity		Longitudinal	PSI	2.5×10^6	2.5×10^6
Electrical					
Electric Strength Short Time (in oil)	ASTM D-149 ASTM D-149	Perpendicular Parallel	Volts/mil KV/in	200 35	200 35
Other					
Thermal Coefficient of Expansion	ASTM D-149	Longitudinal	in./in. /°C	5×10^{-5}	5×10^{-5}
Thermal Conductivity		Longitudinal	BTU/hr-ft-°F	4.0	4.0
Flame Class	UL 94			V-O	
Flame Spread (UL Tunnel Test)	ASTM E-84			25 or less	
Water Absorption 24 Hours	ASTM D-570	Longitudinal	%	0.6 Max	0.6 Max
Density	ASTM D-792	Longitudinal	lbs./in.^{2}	0.066	0.066

Physical Properties

1,000,000 Cycle Grade A Swing Test

Fiberglass Frames	
Condition of General Appearance	PASS
Condition of Perimeter Clearance	PASS
Condition of Strike Prep	PASS
Condition of Hinge Prep	
Top	PASS
Center	PASS
Bottom	PASS
Condition of Mutes	PASS
Condition of Wall Anchors	PASS
Condition of Floor Anchors	PASS
Condition of Miters	PASS

Fiberglass Doors	
Condition of Edge Weld/Bond	PASS
Condition of Lock Prep	PASS
Condition of Hinge Prep	
Top	PASS
Center	PASS
Bottom	PASS
Condition of Top Closure	PASS
Condition of Bottom Closure	PASS
Condition of Door Core/Stiffeners	PASS
Condition of Panels – General	PASS

Documentation can be provided upon request.

Edgewater Door • 175 N. Western Ave. • Neenah, WI 54956 Ph. (920) 886-1995 • Fax (920) 886-1998

10/24/2019