

GLASS FILLED SLS NYLON 12

TECHNICAL DATA



General Properties					
Properties	Condition	Units	Test Method	Unfilled	Glass Filled
Specific Gravity	20	°C	ASTM D792	0.97	1.40
Moisture Absorption	23	°C	ASTM D570	0.41%	0.30%
Glass Content		By Weight		N/A	40%
Thermal Properties					
Properties	Condition	Units	Test Method	PA	GF
Melting Point	T _m	°C	DSC	184	185
DTUL	0.45 MPa	°C	ASTM D648	177	175
DTUL	1.82 MPa	°C	ASTM D648	86	110
Mechanical Properties					
Properties	Condition	Units	Test Method	PA	GF
Tensile Strength		MPa	ASTM D638	44	38.1
Tensile Modulus		MPa	ASTM D638	1600	5910
Tensile Elongation at Break		%	ASTM D638	9	2
Flexural Modulus		MPa	ASTM D790	1285	3300
Impact Strength	Notched Izod	J/m	ASTM D256	214	96
	Unnotched Izod	J/m	ASTM D256	428	101
Surface Finish					
Properties	Condition	Units	Test Method	PA	GF
Facing	As Processed (R _a)	µm		8.5	6.2
	After Polished (R _a)	µm		0.13	1.0
Chemical Resistance					
Properties	Conditions	Units	Test Method	PA	GF
	Alkalines, Hydrocarbons, Fuels, & Solvents				
Electrical Properties					
Properties	Conditions	Units	Test Method	PA	GF
Volume Resistivity	22 °C, 50% RH, 500V	ohm x cm	ASTM D257-93	3.1x10 ¹⁴	2.0x10 ¹⁴
Surface Resistivity	22 °C, 50% RH, 500V	ohm	ASTM D257-93	3.1x10 ¹⁴	2.3Ex10 ¹⁴
Dielectric Constant	22 °C, 50% RH, 500V		D156-95	2.9	2.9
Dielectric Strength		v/mm	D149-95A	1.6x10 ⁴	1.5x10 ⁴
Comparative Tracking Index		V	D5288-92	585, TI-Cu and/or IEC Standard	TBD, 1mm depth