

TYPICAL PROPERTIES OF TOYOLAC 700 X01

Typical Properties	Test Method	Test Conditions	SI Unit	Typical Value
Physical				
Specific Gravity	ASTM D792		-	1.05
Water Absorption	ASTM D570	23°C x 24 hours	%	0.3
Mould Shrinkage	ASTM D955		%	0.4 - 0.6
Rheological				
Melt Flow Rate	ISO 1133	220°C / 10 kg	g/10 min	40
Mechanical				
Tensile stress at yield	ASTM D638	at 5 mm/min	MPa	46
Tensile strain at break	ASTM D638	at 5 mm/min	%	15
Flexural Strength	ASTM D790	at 3 mm/min	MPa	73
Flexural Modulus	ASTM D790	at 3 mm/min	MPa	2300
Rockwell Hardness	ASTM D785	R scale	-	114
Impact				
Izod Impact Strength, notched	ASTM D256	12.7 x 62.5 x 12.7 ^t mm (23°C)	J/m	196
	ASTM D256	12.7 x 62.5 x 12.7 ^t mm (0°C)	J/m	108
	ASTM D256	12.7 x 62.5 x 12.7 ^t mm (-30°C)	J/m	80
Izod Impact Strength, notched	ASTM D256	12.7 x 62.5 x 3.2 ^t mm (23°C)	J/m	215
	ASTM D256	12.7 x 62.5 x 3.2 ^t mm (0°C)	J/m	157
	ASTM D256	12.7 x 62.5 x 3.2 ^t mm (-30°C)	J/m	108
Thermal				
HDT (Unannealed) 127 x 12.7 x 12.7 ^t mm	ASTM D648	1.82 MPa Loading, 18.56 kg/cm ²	°C	92
HDT (Unannealed) 127 x 12.7 x 6.4 ^t mm	ASTM D648	1.82 MPa Loading, 18.56 kg/cm ²	°C	86
Thermal Conductivity	ASTM C177		W/K.m	0.16
Coefficient of Linear Thermal Expansion	ASTM D696		mm/mm°C	7.2 x 10 ⁻⁵
Flammability				
Flammability	UL 94		-	HB
Electrical				
Specific Surface Resistivity	ASTM D257	at 23°C	ohm	>10 ¹⁶
Specific Volume Resistivity	ASTM D257	at 23°C	ohm.cm	>10 ¹⁶
Dielectric Strength	ASTM D149	Short Time	KV/mm	23
Dielectric Constant	ASTM D150	1000 Hz	-	3.1
Power Factor	ASTM D150	1000 Hz	-	6.2 X 10 ⁻³

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