

TYPICAL PROPERTIES OF TOYOLAC 500 322				
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	20
Mechanical				
Tensile stress at yield	ASTM D638	at 5 mm/min	MPa	55
Tensile strain at break	ASTM D638	at 5 mm/min	%	37
Flexural Strength	ASTM D790	at 3 mm/min	MPa	82
Flexural Modulus	ASTM D790	at 3 mm/min	MPa	2600
Rockwell Hardness	ASTM D785	R scale	-	118
Impact				
Izod Impact Strength, notched	ASTM D256	12.7 x 62.5 x 12.7 ¹ mm (23°C)	J/m	147
	ASTM D256	12.7 x 62.5 x 12.7 ¹ mm (0°C)	J/m	98
	ASTM D256	12.7 x 62.5 x 12.7 ¹ mm (-30°C)	J/m	70
Izod Impact Strength, notched	ASTM D256	12.7 x 62.5 x 3.2 ¹ mm (23°C)	J/m	182
	ASTM D256	12.7 x 62.5 x 3.2 ¹ mm (0°C)	J/m	98
	ASTM D256	12.7 x 62.5 x 3.2 ¹ mm (-30°C)	J/m	80
Thermal				
HDT (Unannealed) 127 x 12.7 x 12.7 ¹ mm	ASTM D648	1.82 MPa Loading, 18.56 kg/cm ²	°C	94
HDT (Unannealed) 127 x 12.7 x 6.4 ¹ mm	ASTM D648	1.82 MPa Loading, 18.56 kg/cm ²	°C	89
Thermal Conductivity	ASTM C177		W/K.m	0.15
Coefficient of Linear Thermal Expansion	ASTM D696		mm/mm°C	6.9 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	22
Dielectric Constant	ASTM D150	1000 Hz	-	3.1
Power Factor	ASTM D150	1000 Hz	-	5.6 X 10 ⁻³

Toray Plastics Malaysia Sdn.

