

PLUSTEK PD100

Polyamide 12
Polyram Ram-On Industries

Message:
UNFILLED POLYAMIDE 12 FOR INJECTION MOULDING APPLICATIONS.

General Information			
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.01	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage			
Flow	0.80	%	ASTM D955
--	0.80	%	ISO 2577
Water Absorption			
Saturation	1.5	%	ASTM D570
Saturated, 23°C	1.5	%	ISO 62
Equilibrium, 23°C, 50% RH	0.70	%	ASTM D570, ISO 62
Viscosity	1.60 - 1.72		
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			
Class r	120		ASTM D785
R scale	120		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1100	MPa	ASTM D638, ISO 527-2
Tensile Strength (Yield)	45.0	MPa	ASTM D638, ISO 527-2
Tensile Elongation (Break)	> 50	%	ASTM D638, ISO 527-2
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-30°C	7.0	kJ/m ²	ISO 179
23°C	6.0	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength			ISO 179
-30°C	No Break		ISO 179
23°C	No Break		ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, not annealed	115	°C	ASTM D648, ISO 75-2/B
1.8 MPa, not annealed	45.0	°C	ASTM D648, ISO 75-2/A
Melting Temperature	178	°C	ISO 11357-3, ASTM D3417
Electrical	Nominal Value	Unit	Test Method

Surface Resistivity	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+13	ohms·cm	IEC 60093
Dielectric Strength	32	kV/mm	IEC 60243-1
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.00 mm)	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	85.0	°C	
Drying Time	3.0	hr	
Suggested Max Moisture	0.10	%	
Rear Temperature	215 - 255	°C	
Middle Temperature	220 - 260	°C	
Front Temperature	225 - 265	°C	
Mold Temperature	65.0 - 105	°C	
Injection Pressure	70.0 - 105	MPa	
Injection Rate	Fast		
Holding Pressure	35.0 - 70.0	MPa	
Back Pressure	0.350 - 0.700	MPa	
Screw Speed	60 - 90	rpm	
Injection instructions			

Fill Speed: 50 to 75 mm/sec

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