

Promyde® B30 P2 G15

Polyamide 6

NUREL, S.A.

Message:

Promyde® B30 P2 G15 is a Polyamide 6 injection moulding grade with 15% glass fibre and heat stabilised.

CHARACTERISTICS

This material is distinguished by high mechanical strength, hardness, rigidity, themostability (melting point 220°C), and resistance to hot lubricants and water. Parts made from Promyde® B30 P2 G15 have particularly high dimensional stability and creep strength.

APPLICATIONS

High variety of applications field wherever mechanical properties in combinations with thermal resistance is needed. Glass-fiber reinforced grade are suitable for industrial items such as automotive cooling water tanks, lamp socket housings, fans as well as electrical insulating parts.

General Information				
Filler / Reinforcement		Glass fiber reinforced material, 15% filler by weight		
Additive		heat stabilizer		
Features		Good dimensional stability		
		Rigidity, high		
		High strength		
		Insulation		
		Good creep resistance		
		Thermal Stability		
		Thermal stability, good		
Uses		Electrical components		
		Electrical housing		
		Insulating material		
		Parts under the hood of a car		
Processing Method		Injection molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.22	--	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	60.0	--	cm ³ /10min	ISO 1133
Molding Shrinkage				ISO 294-4
Transverse flow	0.60 - 0.90	--	%	ISO 294-4
Flow	0.40 - 0.70	--	%	ISO 294-4
Water Absorption				ISO 62
Saturated, 23°C	8.0	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.6	--	%	ISO 62
Viscosity Number	145	--	cm ³ /g	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	6000	3400	MPa	ISO 527-2/1

Tensile Stress (Break, 23°C)	150	78.0	MPa	ISO 527-2/50
Tensile Strain (Yield, 23°C)	3.5	7.0	%	ISO 527-2/50
Flexural Modulus ¹ (23°C)	5000	2400	MPa	ISO 178
Flexural Stress ² (23°C)	180	90.0	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	5.0	--	kJ/m ²	ISO 179/1eA
23°C	5.5	12	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	43	--	kJ/m ²	ISO 179/1eU
23°C	50	90	kJ/m ²	ISO 179/1eU
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	215	--	°C	ISO 75-2/B
1.8 MPa, not annealed	190	--	°C	ISO 75-2/A
Melting Temperature (DSC) ³	222	--	°C	ISO 3146
Linear thermal expansion coefficient				DIN 53752
Flow: 23 to 80°C	3.0E-5	--	cm/cm/°C	DIN 53752
Lateral: 23 to 80°C	7.0E-5	--	cm/cm/°C	DIN 53752
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+13	1.0E+10	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+12	ohms · cm	IEC 60093
Dielectric Constant (1 MHz)	3.60	6.90		IEC 60250
Dissipation Factor (1 MHz)	0.025	0.22		IEC 60250
Comparative Tracking Index	500	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (1.5 mm)	HB	--		UL 94
Injection	Dry	Unit		
Drying Temperature	90		°C	
Drying Time	4.0 - 6.0		hr	
Processing (Melt) Temp	260 - 290		°C	
Mold Temperature	40 - 80		°C	
Injection Rate	Moderate-Fast			
Injection instructions				
Back Pressure: moderate				
NOTE				
1.	2.0 mm/min			
2.	2.0 mm/min			

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