

Promyde® B30 P2 G30

Polyamide 6

NUREL, S.A.

Message:

Promyde B30 P2 G30 is a Polyamide 6 UL certified injection moulding grade with 30% glass fibre and heat stabilized.

CHARACTERISTICS

Promyde B30 P2 G30 is distinguished by high mechanical strength, hardness, rigidity, thermo stability (melting point 220°C), and resistance to hot lubricants and water. Parts made from Promyde B30 P2 G30 have particularly high dimensional stability and creep strength.

APPLICATIONS

Promyde B30 P2 G30 is used in a wide range of applications where a combination of mechanical properties and thermal resistance is needed.

Glass-fibre reinforced grades are suitable for housings, supports, industrial articles and electrical insulating parts.

General Information				
UL YellowCard		E341743-100962703		
Filler / Reinforcement		Glass fiber reinforced material, 30% filler by weight		
Additive		heat stabilizer		
Features		Good dimensional stability		
		Rigidity, high		
		High strength		
		Insulation		
		Good creep resistance		
		Thermal Stability		
		Thermal stability, good		
Uses		High hardness		
		Electrical components		
		Electrical housing		
		Industrial application		
		Insulating material		
Processing Method		Shell		
		Injection molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.36	--	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	45.0	--	cm ³ /10min	ISO 1133
Molding Shrinkage				
Vertical flow direction	0.40 - 0.45	--	%	
Flow direction	0.30 - 0.35	--	%	
Water Absorption				ISO 62
Saturated, 23°C	6.7	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.1	--	%	ISO 62

Viscosity Number	145	--	cm ³ /g	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	9300	6200	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	190	110	MPa	ISO 527-2/50
Nominal Tensile Strain at Break (23°C)	3.0	5.0	%	ISO 527-2/50
Flexural Modulus ¹ (23°C)	8000	5100	MPa	ISO 178
Flexural Stress ² (23°C)	250	180	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	10	--	kJ/m ²	ISO 179/1eA
23°C	13	25	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	75	--	kJ/m ²	ISO 179/1eU
23°C	85	95	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	210	--	°C	ISO 75-2/A
Melting Temperature (DSC) ³	222	--	°C	ISO 3146
Linear thermal expansion coefficient				ISO 11359-2
Flow: 23 to 80°C	2.0E-5	--	cm/cm/°C	ISO 11359-2
Lateral: 23 to 80°C	6.0E-5	--	cm/cm/°C	ISO 11359-2
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)	3.80	6.80		IEC 60250
Dissipation Factor (1 MHz)	0.023	0.22		IEC 60250
Comparative Tracking Index	500	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (1.50 mm)	HB	--		UL 94
Injection	Dry	Unit		
Drying Temperature	< 80.0		°C	
Drying Time	4.0 - 6.0		hr	
Processing (Melt) Temp	250 - 270		°C	
Mold Temperature	40.0 - 80.0		°C	
Injection Rate	Moderate-Fast			
Injection instructions				

Back Pressure: moderate

NOTE

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|----|------------|
| 1. | 2.0 mm/min |
| 2. | 2.0 mm/min |
| 3. | 10°C/min |

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