

Promyde® B30 P2 G20 U0

Polyamide 6

NUREL, S.A.

Message:

Promyde B30 P2 G20 U0. Injection Moulding Polyamide 6 with 20% glass fibre, and flame retardant using a halogen and red phosphorous free flame retardant system.

CHARACTERISTICS

Promyde B30 P2 G20 U0 is a polyamide 6 with 20% glass fibre with high mechanical strength, heat stabilized, lubricated and nucleated for injection moulding. Its halogen free flame retardant system enhances its flame behavior to V0- UL rated category.

APPLICATIONS

Promyde B30 P2 G20 U0 allows a fast and efficient mould filling, and an easy mould release, that combined with its excellent mechanical properties, and its flame retardant properties make it suitable for components specially used in electrical and electronics industries.

General Information				
Filler / Reinforcement		Glass fiber reinforced material, 20% filler by weight		
Additive		Nucleating agent		
		heat stabilizer		
		Lubricant		
		Flame retardancy		
Features		Nucleated		
		High strength		
		Fast molding cycle		
		Good formability		
		Phosphorus content, low (to none)		
		Thermal Stability		
		Lubrication		
		Good demoulding performance		
Uses		Electrical/Electronic Applications		
		Electrical components		
Processing Method		Injection molding		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.36	--	g/cm ³	ISO 1183
Molding Shrinkage				
Vertical flow direction	0.40 - 0.45	--	%	
Flow direction	0.30 - 0.35	--	%	
Water Absorption				ISO 62
Saturated, 23°C	6.9	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.3	--	%	ISO 62

Viscosity Number ¹ (H2SO4 (Sulphuric Acid))	125	--	cm ³ /g	ISO 960
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	8300	5000	MPa	ISO 527-2/1
Tensile Stress (23°C)	95.0	40.0	MPa	ISO 527-2/50
Tensile Strain (Break, 23°C)	2.5	5.0	%	ISO 527-2/50
Flexural Modulus ² (23°C)	7200	3500	MPa	ISO 178
Flexural Stress ³ (23°C)	180	90.0	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	6.5	25	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	60	80	kJ/m ²	ISO 179/1eU
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	200	--	°C	ISO 75-2/A
Melting Temperature (DSC) ⁴	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)	3.70	6.80		IEC 60250
Dissipation Factor (1 MHz)	0.023	0.22		IEC 60250
Comparative Tracking Index	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (1.50 mm)	V-0	--		UL 94
Glow Wire Flammability Index (1.50 mm)	960	--	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (1.50 mm)	775	--	°C	IEC 60695-2-13
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				

1.	0,005 g/ml H2SO4
2.	2.0 mm/min
3.	2.0 mm/min
4.	10°C/min

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