

CELANYL® XT1 GF30 BK 9005/W/FA - PPA

Description

(NILAMID XT1 GF30 BK 9005/W/FA)

PPA compound, 30% glass fiber reinforced, heat stabilized.

Intended for engineering applications that require a maximum service temperature higher than that of normal aliphatic polyamides. In addition to the outstanding thermal and chemical resistance, it provides high and constant mechanical performance, unaltered even after moisture absorption. Excellent creep behavior and dimensional stability. Suitable for drinking water applications.

Physical properties	Value	Unit	Test Standard
Density	89.3	lb/ft ³	ISO 1183
Molding shrinkage, parallel (flow)	0.2 - 0.5	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	0.5 - 0.7	%	ISO 294-4, 2577
Water absorption, 23°C-sat	4.1	%	Sim. to ISO 62
Humidity absorption, 23°C/50%RH	1.4	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	1.74E6/1.74E6	psi	ISO 527-1, -2
Tensile stress at break, 5mm/min	29000/-	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	2.1/-	%	ISO 527-1, -2
Flexural modulus, 23°C	1.67E6/1.6E6	psi	ISO 178
Flexural strength, 23°C	43500/37700	psi	ISO 178
Charpy impact strength, 23°C	23.8/-	ft-lb/in ²	ISO 179/1eU
Charpy impact strength, -30°C	22.8/-	ft-lb/in ²	ISO 179/1eU
Charpy notched impact strength, 23°C	4.28/-	ft-lb/in ²	ISO 179/1eA
Charpy notched impact strength, -30°C	3.81/-	ft-lb/in ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature, 20°C/min	612	°F	ISO 11357-1/-3
DTUL at 1.8 MPa	509	°F	ISO 75-1, -2
Flammability @3.2mm nom. thickn.	HB	class	UL 94
Flammability @0.8mm nom. thickn.	HB	class	UL 94

Electrical properties	Value	Unit	Test Standard
CTI 50 drops	550	V	IEC 60112



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Characteristics

Special Characteristics	Chemical resistant, Heat resistant, Improved creep
Product Categories	Glass reinforced
Processing	Injection molding
Regulatory	Drinking water approved
Delivery Form	Granules

