

CELANYL® XT1 HH GF40 BK 9005/C - PPA

Description

PPA compound, 40% 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. Extended heat ageing resistance.

Physical properties	Value	Unit	Test Standard
Density	95.5	lb/ft³	ISO 1183
Molding shrinkage, parallel (flow)	0.1 - 0.3	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	0.3 - 0.6	%	ISO 294-4, 2577
Water absorption, 23°C-sat	3.5	%	Sim. to ISO 62
Humidity absorption, 23°C/50%RH	1.2	%	ISO 62
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	2.18E6/2.18E6	psi	ISO 527-1, -2
Tensile stress at break, 5mm/min	32600/31900	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	1.8/1.8	%	ISO 527-1, -2
Flexural modulus, 23°C	1.89E6/-	psi	ISO 178
Charpy impact strength, 23°C	26.2/>50	ft-lb/in²	ISO 179/1eU
Charpy impact strength, -30°C	23.8/-	ft-lb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	5.23/-	ft-lb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	4.52/-	ft-lb/in²	ISO 179/1eA
Ball indentation hardness, 30s	45700	psi	ISO 2039-1
Thermal properties	Value	Unit	Test Standard
Melting temperature, 20°C/min	612	°F	ISO 11357-1/-3
DTUL at 1.8 MPa	536	°F	ISO 75-1, -2
Flammability @1.6mm nom. thickn.	HB	class	UL 94



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

