

DOMAMID® 66G50H1

(DOMAMID 66G50H)

Polyamide 66, 50% glass fiber reinforced, heat stabilized, for injection moulding.

20.04.2016

TYPICAL PROPERTIES	CONDITION	STANDARD	UNIT	VALUE
PRODUCT IDENTIFICATION				
ISO 1043 abbreviation		ISO 1043		PA66-GF50
ISO 1874-1 designation		ISO 1874-1		PA66,MH,14-160,GF50
PHYSICAL				
Density		ISO 1183	[g/cm ³]	1,57
Mold shrinkage parallel	72 hrs, 23°C, 50% RH	ISO 2577	[%]	0,1 - 0,3
Mold shrinkage transverse	72 hrs, 23°C, 50% RH	ISO 2577	[%]	0,3 - 0,5
RHEOLOGICAL				
Viscosity number	96% H2SO4	ISO 307	[ml/g]	145
MECHANICAL				
				dam / cond.*
Tensile modulus	1 mm/min	ISO 527	[MPa]	16000 / 12500
Tensile stress at break	5 mm/min	ISO 527	[MPa]	230 / 170
Tensile strain at break	5 mm/min	ISO 527	[%]	2,2 / 3,3
Flexural modulus	2 mm/min	ISO 178	[MPa]	14500 / -
Flexural strength	2 mm/min	ISO 178	[MPa]	330 / -
Charpy unnotched	+23 °C	ISO 179/1eU	[kJ/m ²]	100 / 120
Charpy notched	+23 °C	ISO 179/1eA	[kJ/m ²]	17 / 30
Izod impact unnotched	+23 °C	ISO 180/1U	[kJ/m ²]	90 / 115
Izod impact notched	+23 °C	ISO 180/1A	[kJ/m ²]	16 / 30
THERMAL				
Melting point	DSC	ISO 11357-1	[°C]	262
Heat Deflection Temperature (HDT-B)	0,45 MPa	ISO 75	[°C]	260
Heat Deflection Temperature (HDT-A)	1,80 MPa	ISO 75	[°C]	255
VICAT softening temperature	50°C/h - 50N	ISO 306	[°C]	255
ELECTRICAL				
Volume resistivity		IEC 60093	[Ω·cm]	10 ¹⁵
Surface resistivity		IEC 60093	[Ω]	10 ¹³
Comparative Tracking Index (CTI)	Solution A	IEC 60112	[V]	500
BURNING BEHAVIOUR				
Flammability	0,8 mm	UL 94	[Class]	HB
Glow Wire Flammability Index (GWFI)	1 - 3 mm	IEC 60695-2-12	[°C]	650
Burning rate (FMVSS)		FMVSS 302	[mm/min]	< 100

Test run at 23°C if not differently specified, DAM state (dry as moulded), valid for natural colored products

*: conditioned according to ISO 1110

PROCESSING CONDITIONS:

Drying temperature/time : 75-85°C / 2-4h (with dew point of dried air < -30 °C)
 Recommended melt temperature : 270-290 °C
 Recommended mould temperature : 90-110 °C

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

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