

DOMAMID® HCE 6G30

(DOMAMID 6G30HCE)

Polyamide 6, 30% glass fiber reinforced, improved surface finish, for injection moulding

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TYPICAL PROPERTIES	CONDITION	STANDARD	UNIT	VALUE
PRODUCT IDENTIFICATION				
ISO 1043 abbreviation		ISO 1043		PA6-GF30
ISO 1874-1 designation		ISO 1874-1		PA6,M,14-100,GF30
PHYSICAL				
Density		ISO 1183	[g/cm ³]	1,4
Mold shrinkage parallel	72 hrs, 23°C, 50% RH	ISO 2577	[%]	0,2 ÷ 0,4
Mold shrinkage transverse	72 hrs, 23°C, 50% RH	ISO 2577	[%]	0,7 ÷ 0,9
Water absorption	T=23°C / sat.	ISO 62	[%]	6
RHEOLOGICAL				
Viscosity number	96% H2SO4	ISO 307	[ml/g]	145
MECHANICAL				
				dam / cond.*
Tensile modulus	1 mm/min	ISO 527	[MPa]	10000 / 6500
Tensile stress at break	5 mm/min	ISO 527	[MPa]	185 / 120
Tensile strain at break	5 mm/min	ISO 527	[%]	3,5 / 5,0
Flexural modulus	2 mm/min	ISO 178	[MPa]	8600 / 5500
Flexural strength	2 mm/min	ISO 178	[MPa]	275 / 175
Charpy unnotched	+23 °C	ISO 179/1eU	[kJ/m ²]	90 / 110
Charpy notched	+23 °C	ISO 179/1eA	[kJ/m ²]	15 / 28
Izod impact unnotched	+23 °C	ISO 180/1U	[kJ/m ²]	80 / 95
Izod impact notched	+23 °C	ISO 180/1A	[kJ/m ²]	15 / 30
THERMAL				
Melting point	DSC	ISO 11357-1	[°C]	221
Heat Deflection Temperature (HDT-B)	0,45 MPa	ISO 75	[°C]	220
Heat Deflection Temperature (HDT-A)	1,80 MPa	ISO 75	[°C]	200
VICAT softening temperature	50°C/h - 50N	ISO 306	[°C]	215
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 : 240-270 °C
 Recommended mould temperature : 90-100 °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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