DOMO® Engineering Plastics Technical Data Sheet



DOMAMID® 6G30ST

Polyamide 6, 30% glass fiber reinforced, impact modified, for injection moulding.

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TYPICAL PROPERTIES	CONDITION	STANDARD	UNIT	VALUE
PHYSICAL				
Density		ISO 1183	[g/cm³]	1,34
Mold shrinkage parallel	72 hrs, 23°C, 50% RH	ISO 2577	[%]	0,3 ÷ 0,5
Mold shrinkage transverse	72 hrs, 23°C, 50% RH	ISO 2577	[%]	0,9 ÷ 1,1
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RHEOLOGICAL				
Melt Volume Rate (MVR)	275 °C - 5,0 kg	ISO 1133	[cm ³ /10 min]	35
Viscosity number		ISO 307	[ml/g]	145
MECHANICAL				dam / cond.*
Tensile modulus	1 mm/min	ISO 527	[MPa]	9200 / 5800
Tensile stress at break	5 mm/min	ISO 527	[MPa]	160 / 105
Tensile strain at break	5 mm/min	ISO 527	[%]	4,0 / 6,5
Flexural modulus	2 mm/min	ISO 178	[MPa]	8300 / 5200
Flexural strength	2 mm/min	ISO 178	[MPa]	250 / 150
Charpy unnotched	+23 °C	ISO 179/1eU	[kJ/m²]	95 / 110
Charpy notched	+23 °C	ISO 179/1eA	[kJ/m²]	18 / 35
Izod impact unnotched	+23 °C	ISO 180/1A	[kJ/m²]	85 / 100
Izod impact notched	+23 °C	ISO 180/1A	[kJ/m²]	17 / 32
THERMAL				
Melting point	DSC	ISO 11357-1	[°C]	222
Heat Deflection Temperature (HDT-B)	0,45 MPa	ISO 75	[°C]	215
Heat Deflection Temperature (HDT-A)	1,80 MPa	ISO 75	[°C]	200
VICAT softening temperature	50°C/h - 50N	ISO 306	[°C]	210
ELECTRICAL				
Volume resistivity		IEC 93	[Ω·cm]	1015
Surface resistivity		IEC 93	[Ω]	1013
Comparative Tracking Index (CTI)	Solution A	IEC 112	[v]	500
BURNING BEHAVIOUR				
Flammability	0,8 mm	UL 94	[Class]	НВ
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:

 $\begin{array}{lll} \mbox{Drying temperature/time} & : 75-95^{\circ}\mbox{C} / \ 2-4h \\ \mbox{Recommended melt temperature} & : 240-270 ^{\circ}\mbox{C} \\ \mbox{Recommended mould temperature} & : 90-120 ^{\circ}\mbox{C} \\ \end{array}$

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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