

DOMAMID® 6ST1

Polyamide 6, improved impact resistance, for injection moulding.

12.02.2014

TYPICAL PROPERTIES	CONDITION	STANDARD	UNIT	VALUE
PHYSICAL				
Density		ISO 1183	[g/cm ³]	1,11
Moisture absorption	T=23°C / 50%RH	ISO 62	[%]	2,6
Mold shrinkage parallel	72 hrs, 23°C, 50% RH	ISO 2577	[%]	1,1 - 1,3
Mold shrinkage transverse	72 hrs, 23°C, 50% RH	ISO 2577	[%]	1,4 - 1,6
RHEOLOGICAL				
Viscosity number		ISO 307	[ml/g]	145
MECHANICAL				
				dam / cond.*
Tensile modulus	1 mm/min	ISO 527	[MPa]	2700 / 1000
Tensile strain at break	50 mm/min	ISO 527	[%]	>50 / >50
Tensile stress at yield	50 mm/min	ISO 527	[MPa]	70 / 40
Flexural modulus	2 mm/min	ISO 178	[MPa]	2300 / 900
Flexural strength	2 mm/min	ISO 178	[MPa]	90 / 30
Charpy unnotched	+23 °C	ISO 179/1eU	[kJ/m ²]	NB / NB
Charpy unnotched	-30°C	ISO 179/1eU	[kJ/m ²]	NB / NB
Charpy notched	+23 °C	ISO 179/1eA	[kJ/m ²]	18 / 80
Izod impact unnotched	+23 °C	ISO 180/1A	[kJ/m ²]	NB / NB
Izod impact notched	+23 °C	ISO 180/1A	[kJ/m ²]	15 / 75
Hardness Rockwell		ISO 2039/2	[ScaleR]	110 / -
THERMAL				
Melting point	DSC	ISO 11357-1	[°C]	222
Heat Deflection Temperature (HDT-B)	0,45 MPa	ISO 75	[°C]	155
Heat Deflection Temperature (HDT-A)	1,80 MPa	ISO 75	[°C]	60
VICAT softening temperature	50°C/h - 50N	ISO 306	[°C]	190
ELECTRICAL				
Volume resistivity		IEC 93	[Ω·cm]	10 ¹⁵
Surface resistivity		IEC 93	[Ω]	10 ¹³
BURNING BEHAVIOUR				
Flammability	0,8 mm	UL 94	[Class]	HB
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
Recommended melt temperature	: 240-260 °C
Recommended mould temperature	: 60-90 °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.

The information provided in this documentation corresponds to our technical knowledge at the date of its publication and do not constitute a specification. This information may be subject to revision at our discretion. Domo cannot anticipate all conditions under which this information and our products of other manufactures in combination with our products may be used. Domo accepts no responsibility for results obtained by the application of this information or for the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes. Unless otherwise agreed in writing, Domo sells the product without warranties. Buyers and users assume all responsibility and liability for loss or damage arising from handling and use of our products, whether used alone or in combination with other products. Unless specifically indicated, the grades mentioned are not suitable for applications in the pharmaceutical/medical sector.