

### DOMAMID® 6ST1

Polyamide 6, improved impact resistance, for injection moulding.

12/02/2014

TYPICAL PROPERTIES	CONDITION	STANDARD	UNIT	VALUE
<b>PHYSICAL</b>				
Density		ISO 1183	[g/cm <sup>3</sup> ]	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
<b>RHEOLOGICAL</b>				
Viscosity number		ISO 307	[ml/g]	145
<b>MECHANICAL</b>				
				<b>dam / cond.*</b>
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 <sup>2</sup> ]	NB / NB
Charpy unnotched	-30°C	ISO 179/1eU	[kJ/m <sup>2</sup> ]	NB / NB
Charpy notched	+23 °C	ISO 179/1eA	[kJ/m <sup>2</sup> ]	18 / 80
Izod impact unnotched	+23 °C	ISO 180/1A	[kJ/m <sup>2</sup> ]	NB / NB
Izod impact notched	+23 °C	ISO 180/1A	[kJ/m <sup>2</sup> ]	15 / 75
Hardness Rockwell		ISO 2039/2	[ScaleR]	110 / -
<b>THERMAL</b>				
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
<b>ELECTRICAL</b>				
Volume resistivity		IEC 93	[Ω·cm]	10 <sup>15</sup>
Surface resistivity		IEC 93	[Ω]	10 <sup>13</sup>
<b>BURNING BEHAVIOUR</b>				
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.

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