DOMAMID® 6ST1

Polyamide 6, improved impact resistance, for injection moulding.

TYPICAL PROPERTIES	CONDITION	STANDARD	UNIT	VALUE
PHYSICAL				
Density		ISO 1183	[g/cm³]	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/m²]	NB / NB
Charpy unnotched	-30°C	ISO 179/1eU	[kJ/m²]	NB / NB
Charpy notched	+23 °C	ISO 179/1eA	[kJ/m²]	18 / 80
Izod impact unnotched	+23 °C	ISO 180/1A	[kJ/m²]	NB / NB
Izod impact notched	+23 °C	ISO 180/1A	[kJ/m²]	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