

DOMAMID® 6I1

(DOMAMID 6ST1)

Polyamide 6, impact modified, for injection moulding

11/11/2016

TYPICAL PROPERTIES	CONDITION	STANDARD	UNIT	VALUE
PRODUCT IDENTIFICATION				
ISO 1043 abbreviation		ISO 1043		PA6-I
ISO 1874-1 designation		ISO 1874-1		PA6-I,M,14-030
PHYSICAL				
Density		ISO 1183	[g/cm ³]	1,11
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	96% H2SO4	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
Charpy notched	-30°C	ISO 179/1eA	[kJ/m ²]	10 / 9
Izod impact unnotched	+23 °C	ISO 180/1U	[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]	221
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 60093	[Ω·cm]	10 ¹⁵
Surface resistivity		IEC 60093	[Ω]	10 ¹³
Comparative Tracking Index (CTI)	Solution A	IEC 60112	[V]	600
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 (with dew point of dried air < -30 °C)
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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