

## DOMAMID® 6

Polyamide 6, general purpose, for injection molding

07.03.2016

TYPICAL PROPERTIES	CONDITION	STANDARD	UNIT	VALUE
<b>PRODUCT IDENTIFICATION</b>				
ISO 1043 abbreviation		ISO 1043		PA6
ISO 1874-1 designation		ISO 1874-1		PA6,M,14-030
<b>PHYSICAL</b>				
Density		ISO 1183	[g/cm <sup>3</sup> ]	1
Mold shrinkage parallel	72 hrs, 23°C, 50% RH	ISO 2577	[%]	0,9 - 1,1
Mold shrinkage transverse	72 hrs, 23°C, 50% RH	ISO 2577	[%]	1,0 - 1,2
Water absorption	T=23°C / sat.	ISO 62	[%]	10
<b>RHEOLOGICAL</b>				
Melt Volume Rate (MVR)	275 °C - 5,0 kg	ISO 1133	[cm <sup>3</sup> /10 min]	165
Viscosity number	96% H2SO4	ISO 307	[ml/g]	145
<b>MECHANICAL</b>				
				dam / cond.*
Tensile modulus	1 mm/min	ISO 527	[MPa]	3200 / 1000
Tensile strain at break	50 mm/min	ISO 527	[%]	40 / >50
Tensile stress at yield	50 mm/min	ISO 527	[MPa]	80 / 40
Flexural modulus	2 mm/min	ISO 178	[MPa]	2800 / 900
Flexural strength	2 mm/min	ISO 178	[MPa]	105 / 35
Charpy unnotched	+23 °C	ISO 179/1eU	[kJ/m <sup>2</sup> ]	NB / NB
Charpy notched	+23 °C	ISO 179/1eA	[kJ/m <sup>2</sup> ]	4,5 / 20
Izod impact unnotched	+23 °C	ISO 180/1U	[kJ/m <sup>2</sup> ]	NB / NB
Izod impact notched	+23 °C	ISO 180/1A	[kJ/m <sup>2</sup> ]	4,5 / 19
Hardness Rockwell		ISO 2039/2	[ScaleR]	120 / -
<b>THERMAL</b>				
Melting point	DSC	ISO 11357-1	[°C]	221
Heat Deflection Temperature (HDT-B)	0,45 MPa	ISO 75	[°C]	175
Heat Deflection Temperature (HDT-A)	1,80 MPa	ISO 75	[°C]	65
VICAT softening temperature	50°C/h - 50N	ISO 306	[°C]	200
<b>ELECTRICAL</b>				
Volume resistivity		IEC 60093	[Ω·cm]	10 <sup>15</sup>
Surface resistivity		IEC 60093	[Ω]	10 <sup>13</sup>
Comparative Tracking Index (CTI)	Solution A	IEC 60112	[V]	600
<b>BURNING BEHAVIOUR</b>				
Flammability	0,8 mm	UL 94	[Class]	V-2
Glow Wire Flammability Index (GWFI)	1 - 3 mm	IEC 60695-2-12	[°C]	750-850
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	: 230-250 °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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