

DOMAMID[®] 6N1 NC

Polyamide 6, nucleated, for injection moulding, natural color

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TYPICAL PROPERTIES	CONDITION	STANDARD	UNIT	VALUE
PRODUCT IDENTIFICATION				
ISO 1043 abbreviation		ISO 1043		PA6
PHYSICAL				
Density		ISO 1183	[g/cm ³]	1,13
Moisture absorption	T=23°C / 50% RH	ISO 62	[%]	2,6 - 3,4
Mold shrinkage parallel	72 hrs, 23°C, 50% RH	ISO 2577	[%]	0,95 - 1,15
Mold shrinkage transverse	72 hrs, 23°C, 50% RH	ISO 2577	[%]	0,85 - 1,05
Water absorption	T=23°C / sat.	ISO 62	[%]	9 - 10
RHEOLOGICAL				
Melt Volume Rate (MVR)	275 °C - 5,0 kg	ISO 1133	[cm ³ /10 min]	165
Melt Volume Rate (MVR)	275 °C - 2,16 kg	ISO 1133	[cm ³ /10 min]	75
Viscosity number	96% H2SO4	ISO 307	[ml/g]	145
MECHANICAL				
				dam / cond.*
Tensile modulus	1 mm/min	ISO 527	[MPa]	3600 / 1400
Tensile stress at break	50 mm/min	ISO 527	[MPa]	90 / 60
Tensile strain at break	50 mm/min	ISO 527	[%]	5 / > 150
Tensile stress at yield	50 mm/min	ISO 527	[MPa]	90 / 50
Tensile strain at yield	50 mm/min	ISO 527	[%]	5 / 20
Flexural modulus	5 mm/min	ISO 178	[MPa]	2800 / 1000
Flexural strength	5 mm/min	ISO 178	[MPa]	100 / 35
Charpy unnotched	+23 °C	ISO 179/1eU	[kJ/m ²]	N / N
Charpy notched	+23 °C	ISO 179/1eA	[kJ/m ²]	5 / 20
Charpy notched	-30 °C	ISO 179/1eA	[kJ/m ²]	3 / 3
THERMAL				
Melting point		ISO 11357-1	[°C]	221
Heat Deflection Temperature (HDT-B)	0,45 MPa	ISO 75	[°C]	156
Heat Deflection Temperature (HDT-A)	1,80 MPa	ISO 75	[°C]	66
VICAT softening temperature	50°C/h - 50N	ISO 306	[°C]	199
ELECTRICAL				
Volume resistivity		IEC 60093	[Ω·cm]	1E+15
Surface resistivity		IEC 60093	[Ω]	1E+14
BURNING BEHAVIOUR				
Burning rate (FMVSS)		FMVSS 302	[mm/min]	< 100

Test run at 23°C if not differently specified, DAM state (dry as moulded).

*: 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	: 240-280 °C
Recommended mould temperature	: 60-80 °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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