

### DOMAMID® 6STC4

Polyamide 6, high impact resistance also at low temperatures, for injection moulding.

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TYPICAL PROPERTIES	CONDITION	STANDARD	UNIT	VALUE
<b>PHYSICAL</b>				
Density		ISO 1183	[g/cm <sup>3</sup> ]	1,06
Moisture absorption	T=23°C / 50%RH	ISO 62	[%]	2,3
Mold shrinkage parallel	72 hrs, 23°C, 50% RH	ISO 2577	[%]	1,3 - 1,5
Mold shrinkage transverse	72 hrs, 23°C, 50% RH	ISO 2577	[%]	1,7 - 1,9
<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]	1850 / 800
Tensile strain at break	50 mm/min	ISO 527	[%]	>50 / >50
Tensile stress at yield	50 mm/min	ISO 527	[MPa]	45 / 30
Flexural modulus	2 mm/min	ISO 178	[MPa]	1600 / 700
Flexural strength	2 mm/min	ISO 178	[MPa]	65 / 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> ]	70 / 120
Charpy notched	-30°C	ISO 179/1eA	[kJ/m <sup>2</sup> ]	24 / -
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> ]	70 / 120
Izod impact notched	-30°C	ISO 180/1A	[kJ/m <sup>2</sup> ]	22 / -
Hardness Rockwell		ISO 2039/2	[ScaleR]	100 / -
<b>THERMAL</b>				
Melting point	DSC	ISO 11357-1	[°C]	222
Heat Deflection Temperature (HDT-B)	0,45 MPa	ISO 75	[°C]	135
Heat Deflection Temperature (HDT-A)	1,80 MPa	ISO 75	[°C]	50
VICAT softening temperature	50°C/h - 50N	ISO 306	[°C]	170
<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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