

ECONAMID® FL 6I1

(ECONAMID 6ST1)

Polyamide 6, impact modified, for injection moulding

20.04.2016

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]	1,1
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]	135
MECHANICAL				
Tensile modulus	1 mm/min	ISO 527	[MPa]	2700
Tensile strain at break	50 mm/min	ISO 527	[%]	> 50
Tensile stress at yield	50 mm/min	ISO 527	[MPa]	65
Flexural modulus	2 mm/min	ISO 178	[MPa]	2400
Flexural strength	2 mm/min	ISO 178	[MPa]	90
Charpy unnotched	+23 °C	ISO 179/1eU	[kJ/m ²]	NB
Charpy unnotched	-30°C	ISO 179/1eU	[kJ/m ²]	NB
Charpy notched	+23 °C	ISO 179/1eA	[kJ/m ²]	12
Izod impact unnotched	+23 °C	ISO 180/1U	[kJ/m ²]	NB
Izod impact notched	+23 °C	ISO 180/1A	[kJ/m ²]	11
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]	55
VICAT softening temperature	50°C/h - 50N	ISO 306	[°C]	185
ELECTRICAL				
Volume resistivity		IEC 60093	[Ω·cm]	10 ¹⁵
Surface resistivity		IEC 60093	[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 black products

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. ECONAMID grades are not recommended for injection moulding hot runner systems with a diameter below 1mm

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