

ISSUED: 30/01/2018

ISO 9001 CERTIFIED

Promyde B40 P2 FLX HI is a high viscosity polyamide 6, heat stabilized with high flexibility and toughness, equilibrated mechanical properties combined with excellent chemical resistance to gasoline, oil and other hydrocarbons, plasticised and impact modified. It is suitable for tube extrusion.

PROPERTIES	CONDITIONS	TEST METHOD	UNITS	VALUES
PHYSICAL PROPERTIES				
Density	23 °C	ISO 1183	g/cm ³	1.08
Viscosity number	(0,005 g/ml H ₂ SO ₄)	ISO 960D	ml/g	200
Moisture absorption	23 °C / 50% r.h.	ISO 62	%	2,7
Water absorption	23 °C / saturation in water	ISO 62	%	9,5
MECHANICAL PROPERTIES (dry/cond.)*				
Tensile modulus	23 °C, 1 mm/min	ISO 527-1-2	MPa	650 / 500
Tensile strength	23 °C, 50 mm/min	ISO 527-1-2	MPa	50 / 35
Elongation at yield	23 °C, 50 mm/min	ISO 527-1-2	%	- / -
Elongation at break	23 °C, 50 mm/min	ISO 527-1-2	%	>190 / > 200
Flexural modulus	23 °C, 2 mm/min	ISO 178	MPa	590 / 450
Flexural strength	23 °C, 2 mm/min	ISO 178	MPa	24/ 20
Charpy unnotched impact strength ¹⁾	23°C -30°C	ISO 179/1eU	kJ/m ²	NB / NB NB / -
Charpy notched impact strength	23°C -30°C	ISO 179/1eA	kJ/m ²	115 / NB 16 / -
THERMAL PROPERTIES				
Melting temperature (DSC)	10°C/min	ISO 3146	°C	222
Heat Deflection Temperature (HDT)	1,8 MPa 0,45 MPa	ISO 75-1-2	°C	50 -

1) NB: No break.

* dry = dry as moulded / cond.= conditioned according to ISO 1110

CHARACTERISTICS

Promyde B40 P2 FLX HI is an unreinforced polyamide 6 high viscosity, for tube extrusion. It is heat stabilized, plasticized and impact modified. It offers a high impact resistance, high toughness and high flexibility.

APPLICATIONS

Promyde B40 P2 FLX HI is recommended for use in tube extrusion.

FORMAT AND STORAGE

Promyde B40 P2 FLX HI is supplied in moisture-proof packaging. Typical formats are Big Bags, Octabins, and 25kg bags. All containers are perfectly sealed. The product should be stored in a dry place and opened just before processing.

PROCESSING GUIDELINES

Drying

Material is supplied ready to process with low moisture content. When moisture absorption is prevented drying is not required. When drying is necessary, conditions are:

Drying temperature ≤ 80 °C

Dying time: 8 hours

Extrusion

It is recommended not to exceed 250°C.

Moisture

When a moulded part absorbs moisture, tensile and flexural strength decrease and toughness increases.

NOTE

All recommendations are based on knowledge and experience; The values have been established on standardized tests. The figures should be regarded as guide values and not as binding minimum values. As many factors may affect processing or applications, we recommend that customers make their own tests to determine the suitability of a product for its particular use.