

ISSUED: 30/01/2018

ISO 9001 CERTIFIED

Promyde B40 P2 FLX HI is a high viscosity polyamide 6, with high flexibility and toughness, equilibrated mechanical properties, plasticised and impact modified. It is suitable for tube extrusion.

| PROPERTIES | CONDITIONS | TEST METHOD | UNITS | VALUES |
|--|-----------------------------|-------------|-------------------|--------------|
| PHYSICAL PROPERTIES | | | | |
| Density | 23 °C | ISO 1183 | g/cm3 | 1.08 |
| Viscosity number | (0,005 g/ml H2SO4) | 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 | ISO 179/1eU | kJ/m ² | NB / NB |
| | -30°C | | | NB / - |
| Charpy notched impact strength | 23°C | ISO 179/1eA | kJ/m ² | 115 / NB |
| | -30°C | | | 16 / - |
| THERMAL PROPERTIES | | | | |
| Melting temperature (DSC) | 10°C/min | ISO 3146 | °C | 222 |
| Heat Deflection Temperature (HDT) | 1,8 MPa | ISO 75-1-2 | °C | 50 |
| | 0,45 MPa | | | - |

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 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 ≤ 70 °C

Drying 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.