

ISSUED: 14/11/2019

ISO 9001 CERTIFIED

PROMYDE® A30 P is a Polyamide 66 injection moulding grade, heat stabilized, lubricated and nucleated.

PROPERTIES	CONDITIONS	TEST METHOD	UNITS	VALUES
PHYSICAL PROPERTIES				
Density	23 °C	ISO 1183	g/cm3	1,14
Moisture absorption	23 °C / 50% r.h.	ISO 62	%	2,1
Water absorption	23 °C / saturation in water	ISO 62	%	8,9
Flammability	0,8 mm	UL-94		V2
PROCESSING CONDITIONS				
Mould temperature			°C	70-90
Moulding Shrinkage	longitudinal		%	0,9
	transversal		%	1,1
MECHANICAL PROPERTIES				(dry/cond.)*
Tensile modulus	23 °C, 1 mm/min	ISO 527-1-2	MPa	3.400 / 1.300
Tensile strength	23 °C, 50 mm/min	ISO 527-1-2	MPa	85 / 55
Elongation at yield	23 °C, 50 mm/min	ISO 527-1-2	%	5 / 30
Elongation at Break	23 °C, 50 mm/min	ISO 527-1-2	%	15 / >50
Flexural modulus	23 °C, 2 mm/min	ISO 178	MPa	3.100 / -
Flexural strength	23 °C, 2 mm/min	ISO 178	MPa	115 / -
Charpy notched impact strength	23°C	ISO 179/1eA	kJ/m²	5 / 14
	-30°C			4.5 / -
THERMAL PROPERTIES				
Melting temperature (DSC)	10°C/min	ISO 3146	°C	260
Heat Deflection Temperature (HDT)	1,8 MPa	ISO 75-1-2	°C	70
ELECTRICAL PROPERTIES				(dry/cond.)*
Volume resistivity		IEC 60093	Ω.m	10 <sup>13</sup> / 10 <sup>11</sup>
Surface resistivity		IEC 60093	Ω	10 <sup>12</sup> / 10 <sup>10</sup>
Comparative tracking index		IEC 60112		600

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

## CHARACTERISTICS

 Promyde A30 P is a polyamide 66 heat stabilized, lubricated and nucleated for **fast cycle injection moulding**. It is distinguished by its thermo stability (melting point 260°C), and resistance to hot lubricants and water.

## APPLICATIONS

 Promyde A30 P allows a fast and efficient mould filling, a very fast cooling time and an easy mould release, which combined with its excellent mechanical and thermal properties make it suitable for a **wide range of industrial, automotive and electrical applications**.

**FORMAT AND STORAGE**

Promyde A30 P is supplied in moisture-proof packaging. Typical formats are Big Bag, octabin, 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  $\leq 80$  °C

Drying time: 3-6 hours

**Injection moulding**

The recommended processing parameters for injection moulding are:

Melt temperature: 270-290°C

Mould temperature: 70-90 °C

Injection speed: medium

Back pressure: moderate

**Shrinkage**

The shrinkage of a moulded part is influenced by wall thickness, mould gating, and moulding conditions.

**Moisture**

A particular characteristic of reinforced polyamide 66 is its combination of moderate tensile and flexural strength with rigidity, good impact strength, and friction resistance. However, 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.