

ISSUED: 25/11/2020

ISO 9001 CERTIFIED

Promyde A30 P2 U0 T is an unfilled injection moulding Polyamide 66 flame retardant grade (Halogen and Red Phosphorous Free), heat stabilized with high mechanical strength and toughness.

PROPERTIES	CONDITIONS	TEST METHOD	UNITS	VALUES
PHYSICAL PROPERTIES				
Density	23 °C	ISO 1183	g/cm ³	1,17
FLAMMABILITY				
Flammability	0,8 mm	UL-94	Class	V-0
Flammability	1,5 mm	UL-94	Class	V-0
Glow Wire Flammability Index	1,5 mm	IEC 60695-2-12,13	°C	960
PROCESSING CONDITIONS				
Melt temperature, injection moulding			°C	260 - 290
Mould temperature			°C	60 - 100
Moulding Shrinkage	longitudinal transversal		%	0,9 - 1,3 0,9 - 1,3
MECHANICAL PROPERTIES				
				DAM *
Tensile modulus	23 °C, 1 mm/min	ISO 527-1/-2	MPa	3.850
Tensile strength	23 °C, 5 mm/min	ISO 527-1/-2	MPa	76
Elongation at break	23 °C, 5 mm/min	ISO 527-1/-2	%	7,0
Flexural modulus	23°C, 2 mm/min	ISO 178	MPa	3.100
Flexural strength	23°C, 2 mm/min	ISO 178	MPa	120
Charpy unnotched impact strength	23°C	ISO 179/1eU	kJ/m ²	110
Charpy notched impact strength	23°C	ISO 179/1eA	kJ/m ²	5,0
THERMAL PROPERTIES				
Melting temperature (DSC)	10°C/min	ISO 3146	°C	260
Heat Deflection Temperature (HDT)	1,8 MPa	ISO 75-2	°C	80
ELECTRICAL PROPERTIES				
				DAM *
Surface resistivity		IEC 60093	Ω	10 ¹²
Comparative tracking index		IEC 60112	V	600

* DAM = Dry As Moulded

CHARACTERISTICS

Promyde A30 P2 U0 T is an unfilled Polyamide 66 with high mechanical strength, heat stabilized and lubricated for **injection moulding**. Its **halogens and red-phosphorous free flame retardant system** enhances its flame behavior to V0 – UL94 rated category. Glow Wire Flammability Index up to 960°C.

APPLICATIONS

Promyde A30 P2 U0 T allows a **fast and efficient mould filling, and an easy mould release**, that combined with its **excellent mechanical properties**, and its flame-retardant properties make it suitable for components specially used in electrical and electronics industries.

FORMAT AND STORAGE

Promyde A30 P2 U0 T 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 ≤ 80 °C

Drying time: 3-6 hours

Injection moulding

The recommended processing parameters for injection moulding are:

Melt temperature: 260-290°C

Mould temperature: 60-100 °C

Injection speed: medium to high

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 unreinforced 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.

