PEARLTHANE® 11T85P

Thermoplastic Polyurethane Elastomer

PEARLTHANE® 11T85P is a polycaprolactone copolyester based TPU, supplied in form of translucent, colorless pellets, combining hardness with excellent mechanical properties. A special additive package assures excellent paintability of injection molded parts.

TYPICAL PHYSICAL PROPERTIES

Physical Property	Test Method	Typical Values *
Specific Gravity	ASTM D-792	1.16
Shore Hardness	ASTM D-2240	86 A
Tensile Strength	ASTM D-412	6531 psi.
Elongation @ Break	ASTM D-412	600 %
Modulus @ 100% Elongation	ASTM D-412	872 psi.
Modulus @ 300% Elongation	ASTM D-412	1595 psi.
Tear Strength	ASTM D-624 (Die C)	600 lb/in
Abrasion Loss	DIN 53.516	21 mm^3
Compression Set (22 h. @ 77ºF)	ASTM D-395	22 %
Compression Set (24 h. @ 158ºF)	ASTM D-395	37 %
Moisture Content	MQSA 44	< 0.1 %
Melting Range *(MFI = 10**)*	MQSA 111	354 ºF – 372 ºF
Tg *(DSC, 50ºF /10min)*	DIN 51.007	- 45 ºF

** These are typical values & should not be used for establishing specifications.*
*** Temperature at which MFI = 10 g/10 min @ 21.6 kg.*

WORKING INSTRUCTIONS

For optimum results, previous drying of the product during 1-2 hours at 210 - 230º F is advisable, in a hot air circulatory, vacuum or desiccant-air dryer.

INJECTION MOLDING

Based on an injection molding equipment with the following characteristics:

Closing force:	: 30 tons
Screw diameter:	: 1.02 in
L/D ratio:	: 23
Maximum hydraulic pressure:	: 3050 psi.
Mold:	: Plaque 4.7x4.7x0.08 in.

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The suggested processing conditions are as follows:

INJECTION CONDITIONS

Feed zone	380ºF	Injection pressure	1450 psi
Compression zone	390ºF	Injection time	2.8 sec
Metering zone	410ºF	Holding pressure	870 psi
Nozzle	410ºF	Holding time	15 sec
Mold temperature	95ºF	Cooling time	10 sec

Screw speed : approx. 105 rpm.

APPLICATIONS

PEARLTHANE® 11T85P when processed by injection molding, can be used for ski – and safety glasses, decorative panels, automotive parts, etc.

HEALTH AND SAFETY

A safety data sheet on **PEARLTHANE® 11T85P** is available, with all the information related to safety.

PACKAGING

PEARLTHANE® 11T85P is packaged in heat-sealed, moisture proof multi–layer bags of 25 Kg net weight made of PE/Aluminium/PE. Bags are shipped on pallets of 750 Kg. Additionally, PE-lined cardboard gaylords of 700 Kg net weight are available.

STORAGE

Material received from Merquinsa should be inspected to assure containers are not damaged during transportation before being stored prior to use. **PEARLTHANE® 11T85P** should be kept in a cool (60-75ºF) and dry environment prior to being processed. Standard practice of consuming resin on first-in first-out basis should be employed.

For more information, please feel free to contact us at **www.merquinsa.com**

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