

# PEARLTHANE® 11T85P

Thermoplastic Polyurethane Elastomer

PEARLTHANE® 11T85P is a polycaprolactone copolyester based TPU, supplied in form of translucent, colourless pellets, offering adequate hardness with excellent flowability and mechanical properties. A special additive package assures excellent paintability of injection moulded parts.

## TYPICAL PHYSICAL PROPERTIES

Property	Test Method	Typical Values *
Density @ 20°C	DIN 53.479	1.16 g/cm <sup>3</sup>
Shore Hardness	DIN 53.505	86 A
Tensile Strength	DIN 53.504	45 MPa
Elongation @ Break	DIN 53.504	600 %
Modulus @ 100% Elongation	DIN 53.504	6 MPa
Modulus @ 300% Elongation	DIN 53.504	11 MPa
Tear Strength	DIN 53.515	105 kN/m
Abrasion Loss	DIN 53.516	21 mm <sup>3</sup>
Compression Set (70 h. @ 23°C)	ASTM D395B	22 %
Compression Set (24 h. @ 70°C)	ASTM D395B	37 %
Moisture Content	MQSA 44	< 0.1 %
Melting Range (MFI=10**)	MQSA 111	179 – 189 °C
Tg (DSC, 10°C/min.)	DIN 51.007	- 43° C

\* 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 100-110° C is advisable, in a hot air circulatory, vacuum or desiccant-air dryer.

### INJECTION MOULDING

Based on an injection moulding equipment with the following characteristics:

Closing force:	: 30 tons
Screw diameter:	: 26 mm
L/D ratio:	: 23
Maximum hydraulic pressure:	: 210 bar
Mould:	: Plaque 120x120x2 mm

# PEARLTHANE® 11T85P

Thermoplastic Polyurethane Elastomer

The suggested processing conditions are as follows:

## INJECTION CONDITIONS

Feed zone	195°C	Injection pressure	100 bar
Compression zone	200°C	Injection time	2.8 sec
Metering zone	210°C	Holding pressure	60 bar
Nozzle	210°C	Holding time	15 sec
Mould temperature	35°C	Cooling time	10 sec

Screw speed: approx. 105 rpm.

## APPLICATIONS

PEARLTHANE® 11T85P when processed by injection moulding, 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 the containers are not damaged during transportation before being stored prior to use. PEARLTHANE® 11T85P should be kept in a cool (15-25°C) 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](http://www.merquinsa.com)