PEARLTHANE® 11T60D

Thermoplastic Polyurethane Elastomer

PEARLTHANE® 11T60D is a polycaprolactone copolyester based TPU, supplied in form of translucent, colourless pellets, combining very high hardness with excellent mechanical properties. It is especially advisable for use in producing technical parts by injection moulding.

TYPICAL PHYSICAL PROPERTIES

Property	Test Method	Typical Values *
Density @ 20ºC	DIN 53.479	1.19 g/cm^3
Shore Hardness	DIN 53.505	58 D
Tensile Strength	DIN 53.504	40 MPa
Elongation @ Break	DIN 53.504	480 %
Modulus @ 100% Elongation	DIN 53.504	15 MPa
Modulus @ 300% Elongation	DIN 53.504	28 MPa
Tear Strength	DIN 53.515	170 kN/m
Abrasion Loss	DIN 53.516	25 mm^3
Compression Set *(70 h. @ 23ºC)*	ASTM D395B	35 %
Moisture Content	MQSA 44	< 0.1 %
Melting Range *(MFI=10**)*	MQSA 111	202-212 ºC
Tg *(DSC, 10ºC / min.)*	DIN 51.007	- 24º 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

It is recommended to dry the material before use, ideally in a desiccant dryer for 1-2 hours, with hot air or vacuum at 100-110ºC.

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

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E-mail: info@merquinsa.com http://www.merquinsa.com
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The suggested processing conditions are the following ones:

INJECTION CONDITIONS			
Feed zone	210ºC	Injection pressure	80 bar
Compression zone	215ºC	Injection time	4.9 sec
Metering zone	225ºC	Holding pressure	50 bar
Nozzle	220ºC	Holding time	15 sec
Mould temperature	35ºC	Cooling time	35 sec

Screw speed: approx. 140 rpm

APPLICATIONS

PEARLTHANE® 11T60D is especially adequate for the production of shoe heels and top - pieces, rollers, ear-tags, and a variety of injection-moulded components.

HEALTH AND SAFETY

A safety data sheet on **PEARLTHANE® 11T60D** is available, with all information related to safety.

PACKAGING

PEARLTHANE® 11T60D 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® 11T60D** should be kept in a cool (15-25ºC) 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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