PEARLTHANE® 11T60D

Thermoplastic Polyurethane Elastomer

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

TYPICAL PHYSICAL PROPERTIES

Property	Test Method	Typical Values *
Density @ 20ºC	ASTM D-792	1.19
Shore Hardness	ASTM D-2240	58 D
Tensile Strength	ASTM D-412	5801 psi
Elongation @ Break	ASTM D-412	480 %
Modulus @ 100% Elongation	ASTM D-412	2177 psi
Modulus @ 300% Elongation	ASTM D-412	4063 psi
Tear Strength	ASTM D-624 (Die C)	970 lb/in
Abrasion Loss	DIN 53.516	25 mm^3
Compression Set (70 h. @ 73ºF)	ASTM D-395B	35 %
Moisture Content	MQSA 44	< 0.1 %
Melting Range *(MFI=10**)*	MQSA 111	395ºF – 413 ºF
Tg *(DSC, 10ºC / min.)*	DIN 51.007	- 11º F

** 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 210 - 230ºF.

INJECTION MOLDING

Based on an injection moulding 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	410ºF	Injection pressure	1200 psi
Compression zone	420ºF	Injection time	4.9 sec
Metering zone	435ºF	Holding pressure	720 psi
Nozzle	430ºF	Holding time	15 sec
Mold temperature	95ºF	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-molded 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 (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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