PEARLTHANE® 11T65D

Thermoplastic Polyurethane Elastomer

PEARLTHANE® 11T65D is a polycaprolactone copolyester based TPU, supplied in form of translucent, colourless pellets, combining very high hardness with excellent mechanical properties. It is especially designed for injection moulding.

APPLICATIONS

PEARLTHANE® 11T65D is very adequate for the production of shoe heels and top pieces, as well as technical parts. It is also suitable for the production of compounds for the automotive industry.

TYPICAL PHYSICAL PROPERTIES

Property	Test Method	Typical Values *
Density @ 20ºC	DIN 53.479	1.20 g/cm^3
Shore Hardness	DIN 53.505	64 D
Tensile Strength	DIN 53.504	35 MPa
Elongation @ Break	DIN 53.504	440 %
Modulus @ 100% Elongation	DIN 53.504	25 MPa
Modulus @ 300% Elongation	DIN 53.504	31 MPa
Tear Strength	DIN 53.515	210 kN/m
Abrasion Loss	DIN 53.516	25 mm^3
Compression Set *(70 h. @ 23ºC)*	ASTM D395B	35 %
Compression Set *(24 h. @ 70ºC)*	ASTM D395B	50 %
Moisture Content	MQSA 44	< 0.1 %
Melting Range *(MFI=10**)*	MQSA 111	205 – 215 ºC
Tg *(DSC, 10ºC / min.)*	DIN 51.007	- 23ºC

** 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

Merquinsa's Products are sold subject to Merquinsa's General Sales Conditions printed on the back of invoices and other shipping documents (available upon request). This is correct information based on our experience, and is given in good faith and without compromise. Each purchaser bears full responsibility for the application, use and processing of Merquinsa's products described herein, as well as their suitability to the purchaser's specific application, as this is beyond Merquinsa's control.

Gran Vial, 17 08160 Montmeló, Spain Tel. (34) 93 572 11 00 Fax (34) 93 572 09 34
E-mail: info@merquinsa.com http://www.merquinsa.com
Registered in Barcelona Trade Register under Tax Identification Number B08530305, volume 31186, folio 106, page B-30777, entry 12.

ISO 9001 CERTIFICATED FIRM
ISO 14001 CERTIFICATED FIRM
Responsible Care®

The suggested processing conditions are the following:

INJECTION CONDITIONS			
Feed zone	220ºC	Injection pressure	120 bar
Compression zone	225ºC	Injection time	5 sec
Metering zone	230ºC	Holding pressure	50 bar
Nozzle	225ºC	Holding time	15 sec
Mould temperature	25ºC	Cooling time	35 sec

Screw speed: approx. 140 rpm

HEALTH AND SAFETY

A safety data sheet on **PEARLTHANE® 11T65D** is available, with all the information related to safety.

PACKAGING

PEARLTHANE® 11T65D 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® 11T65D** 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.

Our **TECHNICAL SERVICE** will answer any inquiries about our product and its applications.

Merquinsa's Products are sold subject to Merquinsa's General Sales Conditions printed on the back of invoices and other shipping documents (available upon request). This is correct information based on our experience, and is given in good faith and without compromise. Each purchaser bears full responsibility for the application, use and processing of Merquinsa's products described herein, as well as their suitability to the purchaser's specific application, as this is beyond Merquinsa's control.

Gran Vial, 17 08160 Montmeló, Spain Tel. (34) 93 572 11 00 Fax (34) 93 572 09 34
E-mail: info@merquinsa.com http://www.merquinsa.com
Registered in Barcelona Trade Register under Tax Identification Number B08530305, volume 31186, folio 106, page B-30777, entry 12.

ISO 9001 CERTIFICATED FIRM
ISO 14001 CERTIFICATED FIRM
Responsible Care®