

PEARLTHANE® 11H94 is a high performance polycaprolactone copolyester based TPU, supplied in form of translucent, colourless pellets, featuring adequate hardness as well as excellent flow and mechanical properties, including an outstandingly low compression set value. Product recommended for injection-moulding applications with an extremely short cycle time.

TYPICAL PHYSICAL PROPERTIES

Property	Test Method	Typical Values *
Density @ 20°C	DIN 53.479	1.18 g/cm ³
Shore Hardness	DIN 53.505	95 A
Tensile Strength	DIN 53.504	42 MPa
Elongation @ Break	DIN 53.504	515 %
Modulus @ 100% Elongation	DIN 53.504	12 MPa
Modulus @ 300% Elongation	DIN 53.504	23 MPa
Tear Strength	DIN 53.515	135 kN/m
Abrasion Loss	DIN 53.516	35 mm ³
Compression Set (22 h. @ 100°C)	ASTM D 395 B	43 %
Compression Set (70 h. @ 70°C)	ASTM D 395 B	37 %
Compression Set (24 h. @ 70°C)	ASTM D 395 B	32 %
Moisture Content	MQSA 44	< 0.1 %
Melting Range (MFI=10**)	MQSA 111	197 – 207 °C
Tg (DSC, 10°C / min.)	DIN 51.007	- 39° 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® 11H94

Thermoplastic Polyurethane Elastomer

The suggested processing conditions are the following ones:

INJECTION CONDITIONS			
Feed zone	195°C	Injection pressure	100 bar
Compression zone	200°C	Injection time	3 sec
Metering zone	210°C	Holding pressure	50 bar
Nozzle	210°C	Holding time	15 sec
Mould temperature	35°C	Cooling time	22 sec

Screw speed: approx. 70 rpm.

APPLICATIONS

PEARLTHANE® 11H94 is especially recommended for injection moulding applications such as: seals and gaskets, automotive parts and a variety of high performance technical parts.

HEALTH AND SAFETY

A safety data sheet on **PEARLTHANE® 11H94** is available, with all information related to safety.

PACKAGING

PEARLTHANE® 11H94 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® 11H94** 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