PEARLTHANE® eco D12T90

Thermoplastic Polyurethane

PROVISIONAL TECHNICAL DATA SHEET

PEARLTHANE® eco D12T90 is a 91 Shore A , High Performance natural TPU based on *Renewable Sources* for Injection Molding applications This natural TPU resin features properties similar to standard TPU of same hardness (i.e. excellent mechanical properties and abrasion resistance).

PEARLTHANE® eco D12T90 contains approximately 37% of renewable material.

APPLICATIONS

PEARLTHANE® eco D12T90 enhances the performance of a wide range of end use products that ranges from automotive, consumer electronics and sport and leisure applications among others where environmentally-friendly materials can bring value to the end product.

TYPICAL PHYSICAL PROPERTIES

Physical Property	Test Method	Typical Values *
Specific Gravity	ASTM D-792	1.15
Shore Hardness	ASTM D-2240	91 A
Tensile Strength	ASTM D-412	5667 psi
Elongation @ Break	ASTM D-412	470 %
Modulus @ 100% Elongation	ASTM D-412	1380 psi
Modulus @ 300% Elongation	ASTM D-412	3632 psi
Tear Strength	ASTM D-624 (Die C)	697 lb/in
Abrasion Loss	DIN 53.516	35 mm^3
Moisture Content	MQSA 44	< 0.10 %
Melting Range *(MFI = 10**)*	MQSA 111	374 – 392 ºF
Tg *(DSC, 50ºF / min.)*	DIN 51.007	- 42 ºF
Biobased content	ASTM-D6866	37 %

** 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 175 - 195º F is advisable, in a hot air circulatory, vacuum or desiccant-air dryer.

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 DNV CERTIFICATED FIRM
ISO 14001 DNV CERTIFICATED FIRM
Responsible Care®

INJECTION MOLDING

Based on an injection molding equipment with the following characteristics:

Closing force:	: 30 tons
Screw diameter:	: 1.02 in
L/D ratio:	: 23
Maximum hydraulic pressure:	: 3050 psi
Mould:	: Plaque 4.7x4.7x0.08 in

The suggested processing conditions are the following ones:

INJECTION CONDITIONS	
Feed zone	375ºF
Compression zone	385ºF
Metering zone	390ºF
Nozzle	400ºF
Mould temperature	95ºF

HEALTH AND SAFETY

A safety data sheet on **PEARLTHANE® eco D12T90** is available, with all information related to safety.

PACKAGING

PEARLTHANE® eco D12T90 is packaged in heat-sealed, moisture proof PE bags of 25 kg net weight. 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® eco D12T90** 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**

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®