

Pearlthane® D91F65D

Thermoplastic Polyurethane Elastomer

Lubrizol Advanced Materials, Inc.

Message:

PEARLTHANE® D91F65D is an aliphatic TPU supplied in colourless natural pellets. In addition to typical TPU properties like outstanding abrasion loss, PEARLTHANE® D91F65D offers excellent colour stability upon weather exposure. This product provides high quality film and good transparency. It is especially designed for high performance extrusion and film processes.

PEARLTHANE® D91F65D is especially recommended for extrusion applications for exterior automotive parts and a variety of high performance technical parts where weather resistance and transparency are required.

General Information	
Features	Good color stability Good wear resistance Good weather resistance Definition, high aliphatic
Uses	Films Engineering accessories Automotive exterior parts
Agency Ratings	EC 1907/2006 (REACH)
Appearance	Translucent
Forms	Particle
Processing Method	Film extrusion Extrusion Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.11	g/cm ³	ASTM D792
20°C	1.11	g/cm ³	ISO 2781
Moisture Content		%	Internal method
Abrasion Loss	40.0	mm ³	ISO 4649
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	65		ASTM D2240, ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412, ISO 527
100% strain	16.0	MPa	ASTM D412, ISO 527
300% strain	25.0	MPa	ASTM D412, ISO 527
Tensile Strength (Yield)	30.0	MPa	ASTM D412, ISO 527

Tensile Elongation (Break)	370	%	ASTM D412, ISO 527
Thermal	Nominal Value	Unit	Test Method
Melting Temperature ¹	140 - 150	°C	Internal method
Injection	Nominal Value	Unit	
Drying Temperature	50.0	°C	
Drying Time	3.0	hr	
Rear Temperature	155	°C	
Middle Temperature	160	°C	
Front Temperature	160	°C	
Nozzle Temperature	170	°C	
Mold Temperature	35.0	°C	
Screw L/D Ratio	23.0:1.0		
Injection instructions			
Closing force: 30 tonsScrew diameter: 30 mmMaximum hydraulic pressure: 210 barMold Plaque: 120x120x2 mm			
Extrusion	Nominal Value	Unit	
Drying Temperature	50.0	°C	
Drying Time	3.0	hr	
Cylinder Zone 1 Temp.	170 - 180	°C	
Cylinder Zone 2 Temp.	180 - 190	°C	
Cylinder Zone 3 Temp.	190 - 200	°C	
Cylinder Zone 4 Temp.	185 - 195	°C	
Die Temperature	165 - 175	°C	
Extrusion instructions			
L/D Ratio: 25:1 to 30:1Compression Ratio: 2:1 to 3:1Screw Speed: 12 to 60 rpm			
NOTE			

1. Temperature at which MFI = 10
g/10 min @ 21.6 kg

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

