# Pearlthane® D91F88

### Thermoplastic Polyurethane Elastomer

Lubrizol Advanced Materials, Inc.

#### Message:

Pearlthane © D91F88 is an aliphatic TPU supplied in colourless natural pellets. In addition to typical TPU properties like outstanding abrasion loss, PEARLTHANE © D91F88 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® D91F88 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		
	Automotive exterior parts		
Agency Ratings	EC 1907/2006 (REACH)		
Appearance	Colorless		
	Natural color		
Forms	Particle		
Processing Method	Film extrusion		
	Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
	1.13	g/cm³	ASTM D792
20°C	1.13	g/cm³	ISO 2781
Moisture Content		%	Internal method
Abrasion Loss	35.0	mm³	ISO 4649
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	88		ASTM D2240, ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			
100% strain	5.51	MPa	ASTM D412
100% strain	5.50	MPa	ISO 527
300% strain	16.0	MPa	ASTM D412, ISO 527

Tensile Strength (Yield)	26.5	MPa	ASTM D412, ISO 527
Tensile Elongation (Break)	420	%	ASTM D412, ISO 527
Thermal	Nominal Value	Unit	Test Method
Melting Temperature <sup>1</sup>	125 - 135	°C	Internal method
Extrusion	Nominal Value	Unit	
Drying Temperature	80.0 - 90.0	°C	
Drying Time	1.0 - 2.0	hr	
Cylinder Zone 1 Temp.	165 - 175	°C	
Cylinder Zone 2 Temp.	175 - 185	°C	
Cylinder Zone 3 Temp.	185 - 195	°C	
Cylinder Zone 4 Temp.	190 - 200	°C	
Die Temperature	190 - 200	°C	
Extrusion instructions			
L/D Ratio: 25:1 to 30:1Screw Compr	ession Ratio: 2:1 to 3:1		
NOTE			
1.	Temperature at which MFI g/10 min @ 21.6 kg	= 10	

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#### Recommended distributors for this material

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