

IROGRAN® A 92 E 4738

Thermoplastic Polyurethane Elastomer (Polyester)

Huntsman Corporation

Message:

IROGRAN A 92 E 4738 is a white-colored, thermoplastic special-polyester-polyurethane for injection moulding applications. Additional characteristics of the product are flexibility and high mechanical resistance.

PERFORMANCE FEATURES

- High oil resistance
- Good melt flow
- High wear resistance
- Dynamically highly loadable
- Low-temperature flexibility

APPLICATIONS

For the production of tooth belts, round cordsprofiles, high pressure hoses.

General Information			
Features	Flexibility at low temperatures		
	Good liquidity		
	Good flexibility		
	Good wear resistance		
	Oil resistance		
Uses	Conveyor belt repair		
	Pipe		
RoHS Compliance	Contact manufacturer		
Appearance	White		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm³	
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	40.0	cm³/10min	Internal method
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240, ISO 868
Shore A, Injection Molding	92		ASTM D2240, ISO 868
Shore D, Injection Molding	41		ASTM D2240, ISO 868
Mechanical	Nominal Value	Unit	Test Method
Abrasion	25	mm³	ISO 4649
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ¹			DIN 53504

100% strain	8.00	MPa	DIN 53504
300% strain	24.0	MPa	DIN 53504
Tensile Stress ² (Break)	55.0	MPa	DIN 53504
Tensile Elongation ³ (Break)	450	%	DIN 53504
Tear Strength ⁴	110	kN/m	ISO 34-1
Compression Set ⁵			ASTM D395, ISO 815
23°C, 24 hr	25	%	ASTM D395, ISO 815
70°C, 24 hr	40	%	ASTM D395, ISO 815

Injection	Nominal Value	Unit
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Drying Temperature		
--	100 - 110	°C
Vacuum dryer	80.0 - 90.0	°C
Drying Time		
--	3.0	hr
Vacuum dryer	3.0	hr
Dew Point	-30.0	°C
Rear Temperature	175 - 195	°C
Middle Temperature	175 - 195	°C
Front Temperature	175 - 195	°C
Nozzle Temperature	180 - 200	°C
Mold Temperature	20.0 - 70.0	°C

Extrusion	Nominal Value	Unit
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Drying Temperature	100 - 110	°C
Drying Time	3.0	hr
Hopper Temperature	25.0 - 40.0	°C
Cylinder Zone 1 Temp.	165 - 190	°C
Cylinder Zone 2 Temp.	165 - 190	°C
Cylinder Zone 3 Temp.	165 - 190	°C
Cylinder Zone 4 Temp.	165 - 190	°C
Cylinder Zone 5 Temp.	165 - 190	°C
Adapter Temperature	175 - 195	°C
Die Temperature	175 - 200	°C

Extrusion instructions

Nozzle: 170 to 200°C

NOTE

1.	Injection Molded
2.	Injection Molded
3.	Injection Molded
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5.	Injection Molded

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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

