

IROGRAN® A 85 H 4508

Thermoplastic Polyurethane Elastomer (Polyester)

Huntsman Corporation

Message:

IROGRAN A 85 H 4508 is a thermoplastic polyester-polyurethane for injection moulding applications. Additional characteristics of the product are excellent mechanical properties and high tear strength.

PERFORMANCE FEATURES

Easy demolding

High production rates

Dynamically highly loadable

High demolding stability

Recyclable

APPLICATIONS

For the production of mining screens, casual shoe soles conveyor rollers, top lifts, wheels and rollers.

General Information			
Features	Good Mold Release		
	Good Tear Strength		
	Recyclable Material		
Uses	Mining Applications		
	Rollers		
	Wheels		
RoHS Compliance	Contact Manufacturer		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
-- ¹	1.17	g/cm ³	
--	1.20	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/21.6 kg)	50.0	cm ³ /10min	
Molding Shrinkage - Flow (Injection Molded)	0.50	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240, ISO 868
Shore A, Injection Molded	85		
Shore D, Injection Molded	34		
Mechanical	Nominal Value	Unit	Test Method
Abrasion ²	30	mm ³	ISO 4649
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ³			DIN 53504
100% Strain	6.00	MPa	

300% Strain	13.0	MPa	
Tensile Stress ⁴ (Break)	40.0	MPa	DIN 53504
Tensile Elongation ⁵ (Break)	650	%	DIN 53504
Tear Strength ⁶	70	kN/m	ISO 34-1
Compression Set ⁷			ASTM D395, ISO 815
23°C, 24 hr	25	%	
70°C, 24 hr	40	%	
Thermal	Nominal Value	Unit	
Melting Temperature	137 to 200	°C	
Injection	Nominal Value	Unit	
Drying Temperature			
--	100 to 110	°C	
Hot Air Dryer	80.0 to 90.0	°C	
Drying Time			
--	3.0	hr	
Hot Air Dryer	3.0	hr	
Dew Point	-30.0	°C	
Rear Temperature	175 to 195	°C	
Middle Temperature	175 to 195	°C	
Front Temperature	175 to 195	°C	
Nozzle Temperature	180 to 200	°C	
Processing (Melt) Temp	170 to 195	°C	
Mold Temperature	20.0 to 70.0	°C	
Extrusion	Nominal Value	Unit	
Drying Temperature	100 to 110	°C	
Drying Time	3.0	hr	
Hopper Temperature	25.0 to 40.0	°C	
Cylinder Zone 1 Temp.	165 to 190	°C	
Cylinder Zone 2 Temp.	165 to 190	°C	
Cylinder Zone 3 Temp.	165 to 190	°C	
Cylinder Zone 4 Temp.	165 to 190	°C	
Cylinder Zone 5 Temp.	165 to 190	°C	
Adapter Temperature	175 to 195	°C	
Die Temperature	175 to 200	°C	
NOTE			
1.	Injection Molded		
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4.	Injection Molded		
5.	Injection Molded		
6.	Injection Molded		
7.	Injection Molded		

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