

IROGRAN® A 85 P 4854

Thermoplastic Polyurethane Elastomer (Polyether)

Huntsman Corporation

Message:

IROGRAN A 85 P 4854 is a flame-retardant, halogen-free polyether based thermoplastic polyurethane intended for extrusion and injection moulding applications.

IROGRAN A 85 P 4854 is part of the HUNTSMAN technical extrusion product range and offers a specially designed, flexible material with a broad processing window particularly suitable for the preparation of cable jacketing where enhanced fire retardency is required.

PERFORMANCE FEATURES

- High tensile strength
- Excellent wear performance
- Excellent hydrolysis & microbial resistance
- Good low temperature flexibility
- Halogen free
- Flame retardant
- Matt surface
- UL 94 Classification V0

General Information			
UL YellowCard	E208646-305797		
Additive	Flame Retardant		
Features	Flame Retardant		
	Good Flexibility		
	Good Wear Resistance		
	Halogen Free		
	High Tensile Strength		
	Hydrolysis Resistant		
	Low Temperature Flexibility		
	Microbe Resistant		
Uses	Cable Jacketing		
Appearance	Matte Finish		
Forms	Pellets		
Processing Method	Extrusion		
	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity ¹	1.14	g/cm³	ASTM D792, ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/21.6 kg)	150	cm³/10min	
Molding Shrinkage - Flow (Injection Molded)	0.80	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240, ISO 868
Shore A, Injection Molded	83		

Shore D, Injection Molded	33		
Mechanical	Nominal Value	Unit	Test Method
Abrasion ²	40	mm ³	ISO 4649
TMA ³			Internal Method
High : 635.0 µm	180	°C	
Low : 635.0 µm	125	°C	
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ⁴			ASTM D412, DIN 53504
100% Strain	3.50	MPa	
300% Strain	7.50	MPa	
Tensile Strength ⁵ (Break)	25.0	MPa	ASTM D412, DIN 53504
Tensile Elongation ⁶ (Break)	670	%	ASTM D412, DIN 53504
Tear Strength ⁷			
--	35.0	kN/m	ASTM D624
--	35	kN/m	ISO 34-1
Flammability	Nominal Value		Test Method
Flame Rating	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature			
--	80.0 to 90.0	°C	
Hot Air Dryer	60.0 to 70.0	°C	
Drying Time			
--	3.0	hr	
Hot Air Dryer	3.0	hr	
Dew Point	-30.0	°C	
Rear Temperature	170 to 210	°C	
Middle Temperature	170 to 210	°C	
Front Temperature	170 to 210	°C	
Nozzle Temperature	200 to 210	°C	
Processing (Melt) Temp	190 to 205	°C	
Mold Temperature	20.0 to 70.0	°C	
Extrusion	Nominal Value	Unit	
Drying Temperature	80.0 to 90.0	°C	
Drying Time	3.0	hr	
Hopper Temperature	25.0 to 40.0	°C	
Cylinder Zone 1 Temp.	160 to 200	°C	
Cylinder Zone 2 Temp.	160 to 200	°C	
Cylinder Zone 3 Temp.	160 to 200	°C	
Cylinder Zone 4 Temp.	160 to 200	°C	
Cylinder Zone 5 Temp.	160 to 200	°C	
Adapter Temperature	175 to 200	°C	
Die Temperature	175 to 205	°C	

NOTE	
1.	Injection Molded
2.	Injection Molded
3.	Extruded Film
4.	Injection Molded
5.	Injection Molded
6.	Injection Molded
7.	Injection Molded

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