

IROGRAN® A 85 E 5719 FCM

Thermoplastic Polyurethane Elastomer (Polyester)

Huntsman Corporation

Message:

IROGRAN A 85 E 5719 FCM is a thermoplastic polyester polyurethane for melt calendering.
IROGRAN is part of the HUNTSMAN technical extrusion and injection molding product range and offers a specially designed, flexible material with a broad processing window.

IROGRAN A 85 E 5719 FCM is a food contact material

PERFORMANCE FEATURES

- High wear resistance
- Good melt flow
- High elasticity
- Complies with FDA CFR 175.105 / 177.2600

APPLICATIONS

- Texile Coatings
- Technical molding
- Cable jacketing

General Information			
Features	Food Contact Acceptable		
	Good Flexibility		
	Good Flow		
	Good Wear Resistance		
	High Elasticity		
Uses	Cable Jacketing		
	Coating Applications		
Agency Ratings	FDA 21 CFR 175.105		
	FDA 21 CFR 177.2600		
Forms	Pellets		
Processing Method	Calendering		
	Extrusion		
	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity ¹	1.21	g/cm³	ASTM D792, DIN 53479
Melt Volume-Flow Rate (MVR) (190°C/10.0 kg)	60.0	cm³/10min	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240, DIN 53505
Shore A, Injection Molded	85		
Shore D, Injection Molded	36		

Mechanical	Nominal Value	Unit	Test Method
Abrasion ²	20	mm ³	DIN 53516
TMA ³			Internal Method
High : 635.0 µm	160	°C	
Low : 635.0 µm	116	°C	
Calendar Temperature Profile ⁴			
Front Roll	160 to 180	°C	
Rear Roll	160 to 180	°C	
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ⁵			
100% Strain	6.69	MPa	ASTM D412
100% Strain	6.00	MPa	DIN 53504
300% Strain	11.7	MPa	ASTM D412, DIN 53504
Tensile Strength ⁶			
Break	28.3	MPa	ASTM D412
Break	35.0	MPa	DIN 53504
Tensile Elongation ⁷			
Break	600	%	ASTM D412
Break	820	%	DIN 53504
Tear Strength ⁸			
--	99.8	kN/m	ASTM D624
--	80	kN/m	ISO 34-1
Compression Set ⁹			ASTM D395, ISO 815
23°C, 24 hr	30	%	
70°C, 24 hr	42	%	
Extrusion	Nominal Value	Unit	
Drying Temperature	85.0 to 90.0	°C	
Drying Time	3.0	hr	
Hopper Temperature	25.0 to 40.0	°C	
Cylinder Zone 1 Temp.	170 to 195	°C	
Cylinder Zone 2 Temp.	170 to 195	°C	
Cylinder Zone 3 Temp.	170 to 195	°C	
Cylinder Zone 4 Temp.	170 to 195	°C	
Cylinder Zone 5 Temp.	170 to 195	°C	
Adapter Temperature	175 to 200	°C	
Die Temperature	175 to 205	°C	
NOTE			
1.	Injection Molded		
2.	Injection Molded		
3.	Extruded Film		
4.	2 Roll Mill		
5.	Injection Molded		

6.	Injection Molded
7.	Injection Molded
8.	Injection Molded
9.	Injection Molded

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