



Adflex KS 021 P

LyondellBasell Industries - Polyolefin

Tuesday, November 5, 2019

General Information

Product Description

Adflex KS 021 P is a reactor TPO (thermoplastic polyolefin) manufactured using LyondellBasell's proprietary Catalloy process technology. It is suitable for the extrusion and calendaring of soft film and sheet, for the impact modification of polypropylene, as well as monolayer and multilayer air quenched blown films. It is also used by our customers as high cold impact resistance material for automotive color-matched interior trim applications. Key characteristics are flexibility and low temperature impact resistance. The grade is available in natural pellet form.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Latin America • North America	
Features	• Chemical Resistant • Good Flexibility	• High ESCR (Stress Crack Resist.) • Low Temperature Impact Resistance	• Soft
Uses	• Automotive Applications • Automotive Interior Parts • Automotive Interior Trim • Blown Film	• Compounding • Film • Flooring • Plastics Modification	• Profiles • Sheet • Sporting Goods • Toys
Automotive Specifications	• CHRYSLER MS-DB-571 Type F CPN3900 Color: Black • CHRYSLER MS-DB-590 CPN3900	• FORD WSS-M4D777-A8 • GM GMW15702-170020	• IMDS ID 27791295
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Blown Film • Calendaring	• Compounding • Extrusion	• Extrusion Blow Molding • Thermoforming

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density (73°F)	0.880	g/cm ³	ISO 1183/A
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	0.90	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield)	1230	psi	ISO 527-2
Tensile Stress (Break)	1450	psi	ISO 527-2
Tensile Strain (Yield)	37	%	ISO 527-2
Tensile Strain (Break)	500	%	ISO 527-2
Flexural Modulus	50800	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-40°F, Complete Break	1.5	ft·lb/in ²	
-4°F, Partial Break	47	ft·lb/in ²	
73°F, Partial Break	33	ft·lb/in ²	
Instrumented Dart Impact ²			ASTM D3763
-40°F, 0.126 in, Ductile Failure	204	in·lb	
73°F, 0.126 in, Ductile Failure	150	in·lb	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 15 sec)	38		ISO 868

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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	126	°F	ISO 75-2/B
Vicat Softening Temperature	153	°F	ISO 306/A50
Melting Temperature	325	°F	ISO 11357-3
Optical	Nominal Value	Unit	Test Method
Gloss (60°, 45.0 mil)	49		ASTM D2457
Haze (45.0 mil)	96.0	%	ASTM D1003

Notes

¹ Typical properties: these are not to be construed as specifications.

² 21.7 ft/sec