DEXFLEX® 756-68

Thermoplastic Polyolefin Elastomer

LyondellBasell Advanced Polyolefins USA, Inc.

Product Description

DEXFLEX® 756-68 thermoplastic polyolefin (TPO) is designed for automotive air bag covers. This material has been designed for low temperature air bag deployment with a balance of stiffness and ductility. The material is typically black for painted or non-visible applications. The product is also available in natural, or color matched to automotive OEM interior colors with UV stabilization for mold-in-color applications.

Applications:
DEXFLEX® 756-68 thermoplastic polyolefin is intended for use in automotive airbag door applications, either in driver, passenger, or side airbag modules. The typical service temperature range is from -40°C to 100°C. For mold-in-color applications, low gloss appearance can be achieved with most interior grain patterns.

General

Additive	• UV Stabilizer		
Features	• Ductile • Good Stiffness	• Good UV Resistance • Low Gloss	
Uses	• Automotive Applications	• Automotive Interior Parts	• Automotive Interior Trim
Appearance	• Black	• Colors Available	
Forms	• Pellets		

Physical	Nominal Value	Unit	Test Method
Density	0.888	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	4.0	g/10 min	ISO 1133
Molding Shrinkage - Flow			ASTM D955 ISO 294-4
--	0.60 to 0.90	%	
80°C, 48 hr	0.80 to 1.1	%	
Ash Content			
--	< 1.0	wt%	ISO 3451
--	< 1.0	wt%	ASTM D5630

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	400	MPa	ISO 527-2/50
Tensile Stress			ISO 527-2/50
Yield	9.00	MPa	
Break	13.0	MPa	
Tensile Strain			ISO 527-2/50
Yield	50	%	
Break	> 400	%	
Flexural Modulus [2] (23°C, 4.00 mm)	350	MPa	ISO 178
Flexural Strength [2] (23°C, 4.00 mm)	9.00	MPa	ISO 178
Scratch Resistance [3]	5 to 7	N	

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-40°C	95	kJ/m²	
23°C	60	kJ/m²	
Notched Izod Impact Strength [4]			ISO 180/1A
-40°C	90.0	kJ/m²	
23°C	50.0	kJ/m²	
Instrumented Dart Impact [5]			ASTM D3763
-40°C, Max Load	25.0	J	
0°C, Max Load	23.0	J	
23°C, Max Load	18.0	J	

Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 15 sec)	43		ISO 868

DEXFLEX® 756-68
Thermoplastic Polyolefin Elastomer
LyondellBasell Advanced Polyolefins USA, Inc.

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	58.0	°C	ISO 75-2/B
1.8 MPa, Unannealed	44.0	°C	ISO 75-2/A
Melting Temperature [6]	160	°C	ASTM D3418 ISO 3146
CLTE			ASTM D696
Flow: -30 to 80°C	0.00016	cm/cm/°C	
Transverse: -30 to 80°C	0.00011	cm/cm/°C	
Service Temperature	-40 to 100	°C	Internal Method

Flammability	Nominal Value	Unit	Test Method
Burning Rate			
--	< 100	mm/min	SAE J369
--	< 100	mm/min	FMVSS 302
--	< 100	mm/min	ISO 3795
Fogging (95°C, 6 hr, photometric method)	95	%	SAE J1756

Injection	Nominal Value	Unit
Drying Temperature	50.0 to 80.0	°C
Drying Time	2.0 to 6.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	205	°C
Middle Temperature	210	°C
Front Temperature	215	°C
Nozzle Temperature	215	°C
Processing (Melt) Temp	190 to 240	°C
Mold Temperature	30.0	°C
Injection Pressure	3.50 to 10.5	MPa
Back Pressure	0.350 to 2.00	MPa
Screw Speed	50 to 100	rpm
Cushion	6.00 to 13.0	mm

Injection Notes

Hot Runner, Manifold, and Tips: 215°C
Mold Temp, cavity: 30°C
Mold Temp, core: 24°C
Injection Pressure, First Stage: 35 to 105 bar
Injection Pressure, Second Stage: 25 to 70 bar
Injection Velocity: 10 to 80 mm/sec

Notes

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

[2] 2.0 mm/min

[3] GMN3943, FLTM BN 108-13 DCX LP-463DD-18-1

[4] Edgewise

[5] 6.70 m/sec

[6] 10°C/min