



Adflex X 101 H

Advanced Polyolefin

Product Description

Adflex X 101 H is a reactor TPO (thermoplastic polyolefin) manufactured using the LyondellBasell's proprietary *Catalloy* process technology. It exhibits a high softness and a low modulus, with a relatively high melt flow index.

Adflex X 101 H is tailored to replace atactic polypropylene copolymers (APP) used for the modification of bitumen in roofing membranes. The percentage to be added can vary according to the quantity of the atactic polypropylene used in combination with Adflex X 101 H and the requested cold bending temperature of the end product. Due to the high molecular weight of Adflex X 101 H, high blend viscosity and good penetration values are obtained. Its structure is tailored to obtain easy dispersion and phase inversion in the bitumen blend.

Adflex X101H is also used in other industrial applications where high flexibility and the capability of accepting high filler loading levels are required.

The grade is available in natural pellet form.

For regulatory compliance information see Adflex X 101 H Product Stewardship Bulletin (PSB).

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, North America, Asia-Pacific, Australia/NZ, Africa-Middle East, Latin America
Processing Methods	Extrusion Compounding, Injection Molding
Features	Good Chemical Resistance, High ESCR (Environmental Stress Cracking Resistance), Good Flexibility, High Flow , Low Temperature Impact Resistance, Soft
Typical Customer Applications	Bitumen Modification, Industrial

Typical Properties	Method	Value	Unit
Physical			
Density (Method A)	ISO 1183	0.88	g/cm ³
Melt flow rate (MFR) (230°C/2.16Kg)	ISO 1133	8	g/10 min
Mechanical			
Tensile Stress at Break	ISO 527-1, -2	10	MPa
Tensile Stress at Yield	ISO 527-1, -2	6	MPa
Tensile Strain at Break	ISO 527-1, -2	> 800	%
Tensile Strain at Yield	ISO 527-1, -2	> 40	%
Flexural modulus	ISO 178	80	MPa
Impact			
Notched izod impact strength	ISO 180		
(+23 °C, Type 1, Notch A)		No Break	
(-40 °C, Type 1, Notch A)		2	kJ/m ²
Hardness			
Shore hardness (Shore D)	ISO 868	30	
<i>Note: 15 seconds</i>			
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	36	°C
Vicat softening temperature (A50 (50°C/h 10N))	ISO 306	55	°C
Additional Information			
Mold shrinkage	ISO 294-4	1.0	%
<i>Note: 48h after molding, 100 mm x 150 mm x 3.2 mm plaque</i>			

Additional Properties

Tear Strength (Graves, Die C, 50mm/min), ASTM D 624, Load/Width @ Max Load: 67 N/mm

Notes

Typical properties; not to be construed as specifications.