

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 (+23 °C, Type 1, Notch A)	ISO 180	No Break	
(-40 °C, Type 1, Notch A)		2	kJ/m ²
Hardness			
Shore hardness (Shore D) <i>Note: 15 seconds</i>	ISO 868	30	
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 <i>Note: 48h after molding, 100 mm x 150 mm x 3.2 mm plaque</i>	ISO 294-4	1.0	%

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.

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LyondellBasell markets this product through the following entities:

- Equistar Chemicals, LP
- Basell Sales & Marketing Company B.V.
- Basell Asia Pacific Limited

- Basell International Trading FZE
- LyondellBasell Australia Pty Ltd

For the contact details of the LyondellBasell company selling this product in your country, please visit <http://www.lyb.com/>.

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This product(s) may not be used in:

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(ii) the manufacture of any of the following, without prior written approval by Seller for each specific product and application: (1) U.S. FDA Class II, Health Canada Class II or Class III, and/or European Union Class II Medical Devices; (2) film, overwrap and/or product packaging that is considered a part or component of one of the aforementioned Medical Devices; (3) packaging in direct contact with a pharmaceutical active ingredient and/or dosage form that is intended for inhalation, injection, intravenous, nasal, ophthalmic (eye), digestive, or topical (skin) administration; (4) tobacco related products and applications; (5) electronic cigarettes and similar devices; and (6) pressure pipe or fittings that are considered a part or component of a nuclear reactor.

(iii) Additionally, the product(s) may not be used in: (1) U.S. FDA Class III, Health Canada Class IV, and/or European Class III Medical Devices; (2) applications involving permanent implantation into the body; (3) life-sustaining medical applications; and (4) lead, asbestos or MTBE related applications.

All references to U.S. FDA, Health Canada, and European Union regulations include another country's equivalent regulatory classification.

Users should review the applicable Material Safety Data Sheet before handling the product.

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