



Adflex X 101 H

LyondellBasell Industries - Polyolefin

Tuesday, November 5, 2019

General Information

Product Description

Adflex X 101 H is a reactor TPO (thermoplastic polyolefin) manufactured using the LyondellBasell's proprietary Cataloy 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).

General

| | | | |
|-------------------|--|--|---|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Features | • Chemical Resistant • Good Flexibility • High ESCR (Stress Crack Resist.) | • High Flexibility • High Flow • High Molecular Weight | • Low Temperature Impact Resistance • Soft |
| Uses | • Asphalt Modification | • Compounding | • Industrial Applications |
| Appearance | • Natural Color | | |
| Forms | • Pellets | | |
| Processing Method | • Compounding | • Extrusion | • Injection Molding |

ASTM & ISO Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|---|---------------|-----------------------|-------------|
| Density | 0.880 | g/cm ³ | ISO 1183/A |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 8.0 | g/10 min | ISO 1133 |
| Molding Shrinkage (48 hr, 0.126 in) | 1.0 | % | ISO 294-4 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Stress (Yield) | 870 | psi | ISO 527-2 |
| Tensile Stress (Break) | 1450 | psi | ISO 527-2 |
| Tensile Strain (Yield) | > 40 | % | ISO 527-2 |
| Tensile Strain (Break) | > 800 | % | ISO 527-2 |
| Flexural Modulus | 11600 | psi | ISO 178 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tear Strength ² (Peak) | 383 | lbf/in | ASTM D624 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact Strength | | | ISO 180/1A |
| -40°F | 0.95 | ft-lb/in ² | |
| 73°F | No Break | | |
| Hardness | Nominal Value | Unit | Test Method |
| Shore Hardness (Shore D) | 30 | | ISO 868 |

UL and the UL logo are trademarks of UL LLC © 2019. All Rights Reserved.

The information presented here was acquired by UL from the producer of the product or material or original information provider. However, UL assumes no responsibility or liability for the accuracy of the information contained on this website and strongly encourages that upon final product or material selection information is validated with the manufacturer. This website provides links to other websites owned by third parties. The content of such third party sites is not within our control, and we cannot and will not take responsibility for the information or content.

Adflex X 101 H

LyondellBasell Industries - Polyolefin

| Thermal | Nominal Value | Unit | Test Method |
|--|---------------|------|-------------|
| Heat Deflection Temperature (66 psi, Unannealed) | 96.8 | °F | ISO 75-2/B |
| Vicat Softening Temperature | 131 | °F | ISO 306/A50 |

Notes

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

² Die C, 2.0 in/min