Technical Data Sheet

Hifax X 1956 A



Catalloy

Product Description

Hifax X 1956 A is a reactor TPO (thermoplastic polyolefin) manufactured using the LyondellBasell's proprietary *Catalloy* process technology. This grade is primarily used in polyolefin-based compounds to improve mechanical properties and enhance moulded part appearance. In particular, the product is used by our customers for providing tiger stripe resistance and improved aesthetics for unpainted automotive components. The grade is available in natural pellet form.

Regulatory Status

For regulatory compliance information, see *Hifax* X 1956 A <u>Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS)</u>.

Status Commercial: Active

Availability Africa-Middle East; Asia-Pacific; Australia and New Zealand; Europe; North America;

South & Central America

Application Exterior Automotive Applications; Panels & Profiles; Polymer Modifier; TPO Foils and

Skins

Market Automotive; Consumer Products; Industrial, Building & Construction

Processing Method Calendaring; Compounding; Extrusion Flat-die; Injection Molding; Thermoforming

Attribute Good Colorability; Good Flexibility; Good Impact Resistance; High Elongation; High

Nominal

Tensile Strength; Low Flow

| | Nonnia | | |
|-------------------------------------|--------|----------|---------------|
| Typical Properties | Value | Units | Test Method |
| Physical | | | |
| Melt Flow Rate, (230 °C/2.16 kg) | 0.9 | g/10 min | ISO 1133-1 |
| Density, (23 °C, Method A) | 0.89 | g/cm³ | ISO 1183-1 |
| Mechanical | | | |
| Flexural Modulus | 800 | MPa | ISO 178 |
| Tear Strength | 67 | kN/m | ASTM D624 |
| Tensile Stress at Break | 30 | MPa | ISO 527-1, -2 |
| Tensile Stress at Yield | 20 | MPa | ISO 527-1, -2 |
| Tensile Strain at Break | 500 | % | ISO 527-1, -2 |
| Tensile Strain at Yield | 12 | % | ISO 527-1, -2 |
| Impact | | | |
| Charpy Impact Strength - Notched | | | |
| (23 °C) | 95 | kJ/m² | ISO 179 |
| Note: Failure Mode - Partial Break | | | |
| (-20 °C) | 10 | kJ/m² | ISO 179 |
| Note: Failure Mode - Complete Break | | | |
| (-40 °C) | 5 | kJ/m² | ISO 179 |
| Note: Failure Mode - Complete Break | | | |

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| Hardness | | | |
|---|-----|----|---------------|
| Shore Hardness, (Shore D, 15 sec) | 65 | | ISO 868 |
| Thermal | | | |
| Vicat Softening Temperature, (A50) | 145 | °C | ISO 306 |
| Heat Deflection Temperature B, (0.45 MPa, Unannealed) | 70 | °C | ISO 75B-1, -2 |
| DSC Melting Point | 163 | °C | ISO 11357-3 |
| Optical | | | |
| Gloss, (60°, 45 mil) | 57 | | ASTM D2457 |
| Additional Information | | | |
| Mold Shrinkage | | | ISO 294-4 |

Please contact LyondellBasell for shrinkage information.

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Company Information

For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

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

This product(s) may not be used in the manufacture of any of the following, without prior written approval by Seller for each specific product and application:

- (i) U.S. FDA Class I or II Medical Devices; Health Canada Class I, II or III Medical Devices; European Union Class I or II Medical Devices;
- (ii) film, overwrap and/or product packaging that is considered a part or component of one of the aforementioned medical devices;
- (iii) 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;
- (iv) tobacco related products and applications, electronic cigarettes and similar devices.
- (v) safety components in automotive applications, for example: air bags, air bag unit housings and covers, seat belt mechanisms, brake systems, pedals and pedal supports, steering systems.

The product(s) may not be used in:

- (i) U.S. FDA Class III Medical Devices; Health Canada Class IV Medical Devices; European Class III Medical Devices;
- (ii) applications involving permanent implantation into the body;
- (iii) life-sustaining medical applications.

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