

# Terluran EHI-7

Acrylonitrile Butadiene Styrene (ABS)

## TECHNICAL DATASHEET

### DESCRIPTION

Terluran® EHI-7 is a medium flow, high impact extrusion grade with super high gloss and superior surface aesthetics. Styrolution's Terluran® EHI-7 is intended for mono or multilayer sheet making it a perfect fit as a substrate for our weatherable Luran® S ASA.

### FEATURES

- High Impact
- High gloss
- Outstanding deep draw ability for thermoforming applications
- Excellent chemical resistance
- Excellent colorability
- Enhanced depth of image

### APPLICATIONS

- Sheet extrusion
- Thermoforming
- Excellent chemical resistance
- Coextrusion with Luran® S ASA

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Flow Rate, 220 °C/10 kg	ASTM D 1238	g/10 min	7
<b>Mechanical Properties</b>			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	ft-lb/in	7.1
Instrumented Dart Impact (total energy)	ASTM D 3763	in-lbs	432
Instrumented Dart Impact (Peak force)	ASTM D 3763	in-lbs	274
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	6338
Tensile Strain at Yield, 23 °C	ASTM D 638	%	2.9
Tensile Strain at Break, 23 °C	ASTM D 638	%	9.2
Tensile Modulus	ASTM D 638	psi x 10 <sup>3</sup>	315
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 <sup>3</sup>	296
Flexural Stress at 5% Deflection	ASTM D 790	psi	55
<b>Thermal Properties</b>			
Vicat Softening Temperature, VST/A/50 (10N, 50 °C/h)	ISO 306	°F	212
DTUL @ 264 psi - Unannealed	ASTM D 648	°F	210
<b>Optical Properties</b>			

# Terluran EHI-7

Acrylonitrile Butadiene Styrene (ABS)

## TECHNICAL DATASHEET

Property, Test Condition	Standard	Unit	Values
Specular Gloss, 60 °	ASTM D 523		92
<b>Other Properties</b>			
Density	ASTM D 792	lb/in <sup>3</sup>	1.02
<b>Processing</b>			
Linear Mold Shrinkage	ASTM D 955	in/in	0.004 - 0.007
Melt Temperature Range	-	°F	425 - 500
Mold Temperature Range	-	°F	85 - 140
Drying Temperature	-	°F	175
Suggested Max. Regrind	-	%	20

Typical values for uncolored products

## PRODUCT SAFETY

No adverse effects on the health of processing personnel have been observed if the products are correctly processed and the production areas are suitably ventilated. For styrene, acrylonitrile and 1,3-butadiene the maximum allowable workplace concentrations must be observed according to the pertaining national regulations. In the United States, the following exposure limit values are valid: styrene, OSHA-TWA: 100 ppm, ACGIH-TWA: 85 mg/m<sup>3</sup> = 20 ppm; acrylonitrile, OSHA-TWA: 1 ppm, ACGIH-TWA: 4.3 mg/m<sup>3</sup> = 2 ppm (May be absorbed through the skin) and 1,3-butadiene, OSHA-TWA: 1 ppm, ACGIH-TWA: 4.4 mg/m<sup>3</sup> = 2 ppm (A2). According to the National Toxicology Program (NTP), acrylonitrile is classified as "Reasonably anticipated to be a human carcinogen", 1,3-butadiene is classified as "Known to be a human carcinogen" and styrene is classified as "Reasonably anticipated to be a human carcinogen". Experience has shown that during appropriate processing of Terluran with suitable ventilation the values obtained are well below the limits mentioned above. OSHA and National Institute of Occupational Safety and Health (NIOSH) air sampling methods can be used for determining and assessing the concentrations of hazardous substances in the air within working areas. Inhalation of gaseous degradation products, such as those which may arise on severe overheating of the material or during pumped evacuation, must be avoided. Further information can be found in our Terluran safety data sheets.

## DISCLAIMER

The aforementioned data shall constitute the agreed contractual quality of the product sold by INEOS Styrolution at the time of passing of risk. INEOS Styrolution does not make any further warranty, representation or guarantee of any kind, express or implied, regarding the suitability of the product for any particular purpose or application and INEOS Styrolution disclaims all liability in connection therewith. The customer himself is required to verify whether or not the product is suitable for the further processing or application intended and whether or not the product complies with the relevant statutory requirements. Unless explicitly and individually otherwise agreed in writing, INEOS Styrolution's sole and exclusive liability with respect to its products is set forth in INEOS Styrolution's General Terms and Conditions for Sale.