Ultramid® HFX 35

BASF Corporation - Polyamide 6

Monday, November 4, 2019

General Information

Product Description

Ultramid HFX 35 is a polyamide specialty extrusion resin combining high flexibility, outstanding chemical resistance and enhanced heat stability.

Applications
Ultramid HFX 35 is recommended for pipe and tubing applications requiring high melt strength and flexibility.

General		
Material Status	• Commercial: Active	
Availability	• North America	
Features	• Chemical Resistant • Good Thermal Stability	• High Flexibility • High Melt Strength
Uses	• Piping	• Tubing
Agency Ratings	• EC 1907/2006 (REACH)	
RoHS Compliance	• RoHS Compliant	
Forms	• Pellets	
Processing Method	• Extrusion	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.13	g/cm³	ISO 1183
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	171000	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	6960	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	30	%	ISO 527-2
Flexural Modulus (73°F)	152000	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (73°F)	5.7	ft·lb/in²	ISO 179
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (66 psi, Unannealed)	205	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	118	°F	ISO 75-2/A
Melting Temperature (DSC)	428	°F	ISO 3146

Processing Information

Extrusion	Nominal Value	Unit
Drying Temperature	149	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Cylinder Zone 1 Temp.	437 to 473	°F
Cylinder Zone 3 Temp.	437 to 482	°F
Cylinder Zone 5 Temp.	437 to 473	°F
Flange Temperature	446 to 473	°F
Melt Temperature	437 to 473	°F
Head Temperature	446 to 473	°F
Die Temperature	446 to 473	°F

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Extrusion	Nominal Value	Unit
Extruder Screw L/D Ratio	20.1:1.0 to 24.0:1.0	
Extruder Screw Compression Ratio	3.5:1.0 to 4.0:1.0	

Extrusion Notes

Screw Parameters

- Metering Section : 40%
- Transition Section : 3 to 4 flights
- Feed Section : balance of screw length

Notes

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