

Ultramid® HFX 33

Polyamide 6

BASF Corporation

Message:

Ultramid HFX 33 is a polyamide specialty extrusion resin combining high flexibility, excellent burst performance and outstanding chemical resistance. It offers high melt strength and enhanced heat stability.

Applications

Ultramid HFX 33 is recommended for tubing applications requiring an outstanding balance of flexibility, chemical and heat resistance and burst performance.

General Information			
Features	Good melt strength		
	Good flexibility		
	Good chemical resistance		
	Thermal stability, good		
Uses	Pipe fittings		
Agency Ratings	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS compliance		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	1.04	g/cm ³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	430	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	40.0	MPa	ISO 527-2
Nominal Tensile Strain at Break (23°C)	300	%	ISO 527-2
Flexural Modulus (23°C)	400	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	120	kJ/m ²	ISO 179
Notched Izod Impact (23°C)	90	kJ/m ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	40.0	°C	ISO 75-2/A
Melting Temperature (DSC)	220	°C	ISO 3146
Extrusion	Nominal Value	Unit	
Drying Temperature	65.0	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.10	%	
Cylinder Zone 1 Temp.	225 - 245	°C	
Cylinder Zone 3 Temp.	225 - 250	°C	
Cylinder Zone 5 Temp.	225 - 245	°C	

Flange temperature	230 - 245	°C
Head Temperature	230 - 245	°C
Extruder Screw L/D Ratio	20.0:1.0 to 24.0:1.0	
Extruder Screw Compression Ratio	3.5:1.0 to 4.0:1.0	
Melt Temperature	225 - 245	°C
Die Temperature	230 - 245	°C

Extrusion instructions

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

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