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BASF SE

Ultramid® Flex F38

Product description Ultramid® Flex F38 is a unique high viscosity copolyamide designed for extruded articles that require any combination of properties such as: transparency, heat-sealability, high tear-resistance, softness, and thermoformability

Specification	Test method	Unit	Value
Relative Viscosity (RV) PODB	BASF method		3.70 - 3.90
Moisture content	According to ISO 15512	% [m/m]	max. 0.06
Extractables	According to ISO 6427- Chips not Ground/16h	% [m/m]	max. 1.2

General properties	Test method	Unit	Typical value
Melting point	According to ISO 3146	°C	197 - 201
	According to ASTM D3418	°F	387 - 394
Density	According to ISO 1183	g/cm ³	1.06 - 1.09
Bulk density		kg/m ³	780
Pellet size		mm	2 - 2.5
Pellet shape			Round
Water absorption, 23°C/50% rh		%	2.3
Water, saturation in water 23°C		%	5.3

Properties of Monolayer Film Test Specimens	Test method	Unit	
Tensile at break MD	ISO 527	psi	6600
Tensile at break TD		psi	6200
Elongation at break MD	ISO 527	%	330
Elongation at break TD		%	335
Elmendorf Tear MD	ISO 6383-3	gram force	975
Elmendorf Tear TD		gram force	2275
Haze	ASTM D1003	%	0.3
Heat Seal Initiation Temperature ¹	BASF	°C	132
		F	270
Water Vapor Transmission at 85% RH	ASTM F1249	$\frac{\text{cm}^3 \cdot \mu\text{m}}{\text{m}^2 \cdot \text{day} \cdot \text{bar}}$	860
Oxygen transmission at 0% RH	ASTM D3985-05	$\frac{\text{cm}^3 \cdot \mu\text{m}}{\text{m}^2 \cdot \text{day} \cdot \text{bar}}$	13850
Oxygen permeability at 50% RH		$\frac{\text{cm}^3 \cdot \mu\text{m}}{\text{m}^2 \cdot \text{day} \cdot \text{bar}}$	11150

4 mil blown film used for testing except Heat Seal Initiation which was 2 mil blown film.

Values shown are based on limited testing of unmodified, uncolored material (unless otherwise noted) and are not intended to be used in establishing maximum or minimum ranges for specification purposes.

¹ temperature at which 8.8N/25.4mm (2pounds/in) seal strength is attained.

Supply form and storage	Ultramid® Flex F38 nylon film grades are supplied pre-dried and ready for processing in moisture proof container.
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Food legislation	Ultramid® film grades (Ultramid® A, B, C, Flex F) comply with the current legislation on plastics in contact with food in several regions. If you need details on the food approval status of a particular Ultramid® grade, please contact BASF directly at plastics.safety@basf.com . We will be happy to provide you with an up-to-date declaration of conformity based on the current legal regulations.
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Drying	Ultramid® F nylon, like all polyamides, absorb moisture. Excess moisture is the leading cause of processing problems. This product is pre-dried before packing in sealed containers; however, once these seals are broken, care should be taken that the material be dried before processing. Generally, Ultramid® Flex F nylon can be dried at 180°F for 2 hours or longer, depending on actual moisture conditions.
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Processing	Ultramid® F nylon may be processed on standard extrusion equipment. Extruder screws of L:D 24-30 and compression ratio 3.0-3.5 are recommended. Typical extruder settings are: zone 1 (feeding zone): 240-270°C, zone 2-4: 240-260°C, adapter: 240-260°C, die: 240-260°C
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Further information	North America: nylon.basf.us Tel.: +1 800 527 8324
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