Ultraform® N2320 0035
Acetal (POM) Copolymer
BASF Corporation

Product Description

Rapidly solidifying standard grade for injection molding.
Abbreviated designation according to ISO 1043: POM
Designation according to ISO 9988-1: POM-K, M-GNR, 03-002

Ultraform® is supplied in the form of granules having a bulk density of approx. 850 g/l. Standards packs are the 25 kg PE bag and the 1000 kg Oktabin (octagonal container). Ultraform® is not subject to change when it is stored in dry, ventilated rooms. After relatively long storage (>1 year) or when handling material from previously opened containers, preliminary drying is recommended in order to remove any moisture which has been absorbed.

Ultraform® is not a hazardous material as defined in the German Ordinance on Hazardous Materials. If Ultraform® is processed properly little or no formaldehyde occurs in the region of the processing machine. Measures should be taken to ensure ventilation and venting of the work area, preferably by means of an extraction hood over the barrel unit.

Ultraform® decomposes when subjected to excessive heat. The decomposition products formed in this case consist almost exclusively of formaldehyde, a gas which has a pungent smell even at very low concentrations and irritates the mucous membranes. Decomposition can rapidly result in the build-up of a high gas pressure in the barrel of the processing unit. If the die is sealed there may be a sudden release of pressure via the filling hopper. Contamination of Ultraform® by thermoplastics that cause ecomposition of polyacetals, e.g. PVC or plastics containing halogenated fire protection agents, must be avoided under all circumstances. Even small quantities can cause uncontrolled and rapid decomposition of Ultraform® during processing. Pellets and finished parts must not be allowed to come into contact with strong acids (especially concentrated hydrochloric acid) since they cause Ultraform® to decompose.

General	
Material Status	• Commercial: Active
Availability	• Europe
Features	• General Purpose
Uses	• General Purpose
Forms	• Granules
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• POM

Physical	Nominal Value	Unit	Test Method
Density	1.40	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	7.50	cm³/10min	ISO 1133
Water Absorption			ISO 62
24 hr, 23°C	0.80	%	
Equilibrium, 23°C, 50% RH	0.20	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2450	MPa	ISO 527-2
Tensile Stress (Yield)	63.0	MPa	ISO 527-2/50
Tensile Strain (Yield)	13	%	ISO 527-2/50
Nominal Tensile Strain at Break	33	%	ISO 527-2/50
Tensile Creep Modulus[2] (1000 hr)	1300	MPa	ISO 899-1
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	5.5	kJ/m²	
23°C	6.5	kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	190	kJ/m²	
23°C	260	kJ/m²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness (H 358/30)	130	MPa	ISO 2039-1
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			ISO 75-2/A
1.8 MPa, Unannealed	100	°C	
Melting Temperature	167	°C	ISO 11357-3
CLTE - Flow (23 to 55°C)	0.00011	cm/cm/°C	ISO 11359-2
Maximum Dynamic Service Temperature	100	°C	

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Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohm·cm	IEC 60093
Relative Permittivity (1 MHz)	3.80		IEC 60250
Dissipation Factor (1 MHz)	0.0050		IEC 60250
Comparative Tracking Index (Solution A)	600	V	IEC 60112

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (1.60 mm)	HB		UL 94

Injection	Nominal Value	Unit
Processing (Melt) Temp	190 to 230	°C
Mold Temperature	60.0 to 100	°C

Notes

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

[2] Strain <= 0.5%, 23°C