Ultraform® N 2200 G53 UNC Q600

BASF Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

Ultraform N 2200 G53 UNC Q600 is a 25% glass fiber reinforced POM injection molding grade with enhanced stiffness and toughness.

Applications
Typical applications include chain conveyors and automotive suspension components.

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber, 25% Filler by Weight		
Features	• Copolymer	• Good Stiffness	• Good Toughness
Uses	• Automotive Applications	• Conveyor Parts	
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• CHRYSLER MS-DB-412 Color: Natural		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.58	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	4.00	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.4	%	
Flow	0.70	%	
Water Absorption (Saturation, 73°F)	0.90	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.15	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	1.28E+6	psi	ISO 527-2
Tensile Stress			ISO 527-2
Break, -40°F	25100	psi	
Break, 73°F	18900	psi	
Break, 176°F	11500	psi	
Tensile Strain			ISO 527-2
Break, -40°F	3.2	%	
Break, 73°F	3.0	%	
Break, 176°F	4.5	%	
Tensile Creep Modulus (1 hr)	1.09E+6	psi	ISO 899-1
Tensile Creep Modulus (1000 hr)	841000	psi	ISO 899-1
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179
-22°F	4.0	ft·lb/in²	
73°F	4.3	ft·lb/in²	

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Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength			ISO 179
-22°F	29	ft·lb/in²	
73°F	26	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (66 psi, Unannealed)	329	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	325	°F	ISO 75-2/A
Melting Temperature (DSC)	334	°F	ISO 3146
CLTE - Flow	1.7E-5	in/in/°F	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Electric Strength	1100	V/mil	IEC 60243-1
Dielectric Constant			IEC 60250
100 Hz	4.00		
1 MHz	4.00		
Dissipation Factor			IEC 60250
100 Hz	2.0E-3		
1 MHz	5.0E-3		
Comparative Tracking Index	600	V	IEC 60112

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176 to 230	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.15	%
Processing (Melt) Temp	374 to 446	°F
Mold Temperature	140 to 248	°F
Injection Pressure	508 to 1020	psi

Notes

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