Formolene® 6535N

Tuesday, November 5, 2019

Formosa Plastics Corporation, U.S.A. - Polypropylene Impact Copolymer

General Information

Product Description

Formolene® 6535N is an engineered, medium impact copolymer polypropylene. It was specifically developed to meet the OEM demands for automotive interior trim applications, with proven injection molding economy.

The optimal stiffness and impact balance also provides for utility in industrial applications including bins and crates, and small appliances.

Material has been approved under automotive specifications - FCA MS-DB-500 CPN 3560 and CPN 4732, Ford WSS-M4D638-B, GM16208-T1, Renault Nissan AS5, and Toyota TSM 5514G Class 2.

This material is free of animal-derived content.

General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• Good Impact Resistance • Good Stiffness	• Impact Copolymer • No Animal Derived Components	
Uses	• Automotive Interior Parts • Automotive Interior Trim	• Crates • Industrial Applications	• White Goods & Small Appliances
Agency Ratings	• EC 1907/2006 (REACH)		
Automotive Specifications	• CHRYSLER MS-DB-500 CPN3560 • CHRYSLER MS-DB-500 CPN4732 • FORD WSS-M4D638-B	• GM GMP.PP.033 Color: Natural • GM GMW16208P-PP-T1 • RENAULT AS5	• TOYOTA TSM 5514G-2
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.900	g/cm³	ASTM D1505
Density	0.900	g/cm³	ISO 1183
Melt Mass-Flow Rate (230°C/2.16 kg)	35	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	35	g/10 min	ISO 1133
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (Injection Molded)	174000	psi	ISO 527-2/50
Tensile Strength [2] (Yield, Injection Molded)	3480	psi	ASTM D638
Tensile Stress (Yield, Injection Molded)	3470	psi	ISO 527-2/50
Tensile Strain (Yield, Injection Molded)	6.0	%	ISO 527-2/50
Tensile Elongation [2] (Break, Injection Molded)	100	%	ASTM D638
Tensile Strain (Break, Injection Molded)	80	%	ISO 527-2/50
Flexural Modulus - 1% Secant [3] (Injection Molded)	165000	psi	ASTM D790
Flexural Modulus - Chord [4]	167000	psi	ISO 178

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Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256A
0°F, Injection Molded	1.2	ft·lb/in	
32°F, Injection Molded	1.5	ft·lb/in	
73°F, Injection Molded	2.5	ft·lb/in	
Notched Izod Impact Strength			ISO 180
-40°F, Injection Molded	1.9	ft·lb/in²	
0°F, Injection Molded	2.9	ft·lb/in²	
73°F, Injection Molded	6.1	ft·lb/in²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D, Injection Molded)	63		ASTM D2240
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, Injection Molded	207	°F	
Heat Deflection Temperature (66 psi, Unannealed)	203	°F	ISO 75-2/Be
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, Injection Molded	126	°F	
Heat Deflection Temperature (264 psi, Unannealed)	126	°F	ISO 75-2/Ae

Notes

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

[2] 2.0 in/min

[3] 0.051 in/min

[4] 0.079 in/min