Formolene® 4100P

Formosa Plastics Corporation, U.S.A. - Polypropylene Homopolymer

Tuesday, November 5, 2019

General Information

Product Description

Formolene® 4100P is a polypropylene homopolymer designed for general purpose injection molding applications including closures, small appliances, housewares and toys. It contains a unique combination of stabilizers, which provides excellent processability with good stiffness, environmental stress crack resistance, heat performance and minimal odor & taste.

Formolene® 4100P meets the requirements of the U.S. Food and Drug Administration as specified in 21 CFR 177.1520, covering safe use of polyolefin articles and components of articles intended for direct food contact.

This material is free of animal-derived content.

General			
Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Unspecified Stabilizer		
Features	• Food Contact Acceptable • General Purpose • Good Processability • Good Stiffness	• High ESCR (Stress Crack Resist.) • High Heat Resistance • High Isotactic • Homopolymer	• Low Odor • Low to No Taste • No Animal Derived Components
Uses	• Appliances • Closures	• General Purpose • Household Goods	• Toys
Agency Ratings	• EC 1907/2006 (REACH)	• FDA 21 CFR 177.1520	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.900	g/cm³	ASTM D1505
Melt Mass-Flow Rate (230°C/2.16 kg)	20	g/10 min	ASTM D1238
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Yield, Injection Molded)	5080	psi	ASTM D638
Tensile Elongation [2] (Yield, Injection Molded)	9.0	%	ASTM D638
Flexural Modulus - 1% Secant [3] (Injection Molded)	199000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F, Injection Molded)	0.39	ft·lb/in	ASTM D256A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale, Injection Molded)	105		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, Injection Molded	212	°F	

Notes

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

[2] 2.0 in/min

[3] 0.051 in/min