

DURACON® PM27S01N

Polyplastics - Acetal (POM) Copolymer

General Information

Product Description

Medical

High Flow, Fast Molding Cycle

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Biocompatible • Copolymer • Fast Molding Cycle	• High Flow • High Friction • Medium Viscosity	• Wear Resistant
Uses	• Medical/Healthcare Applications		
Agency Ratings	• DMF • EU 10/2011	• FDA 21 CFR 177.2470 • ISO 10993	• MAF • USP Class VI
Part Marking Code (ISO 11469)	• >POM<		

 Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.41	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	27	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	23	cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 294-4
Across Flow : 0.0787 in	2.2	%	
Flow : 0.0787 in	2.1	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	421000	psi	ISO 527-1
Tensile Stress	9570	psi	ISO 527-2
Nominal Tensile Strain at Break	20	%	ISO 527-2
Flexural Modulus	377000	psi	ISO 178
Flexural Stress	13200	psi	ISO 178
Coefficient of Friction ³ (Dynamic)	0.40		JIS K7218
Wear Factor			JIS K7218
140 psi, 59 ft/min ⁴	< 0.50	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
140 psi, 59 ft/min ⁵	50	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
8.7 psi, 30 ft/min ⁶	1500	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
8.7 psi, 30 ft/min ⁷	3000	10 ⁻¹⁰ in ³ ·min/ft·lb·hr	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	3.3	ft·lb/in ²	ISO 179/1eA
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	88		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	203	°F	ISO 75-2/A
CLTE - Flow (73 to 131°F)	6.1E-5	in/in/°F	Internal Method
CLTE - Transverse (73 to 131°F)	6.1E-5	in/in/°F	Internal Method
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093



Electric Strength (0.118 in)	480 V/mil	IEC 60243-1
Additional Information	Nominal Value	Unit
Color Number	WK2001	Test Method
Notes		
1 Typical properties: these are not to be construed as specifications.		
2 60x60x2mmt, Cavity Pressure 60 MPa		
3 vs C-Steel, pressure 0.98MPa, 30cm/s		
4 vs C-Steel, Steel Side		
5 vs C-Steel, Material Side		
6 vs M90-44, Material Side		
7 vs M90-44, M90-44 Side		

