



MANUFACTURING CORPORATION

- Plastics Machining
- Spring Energized Seals
- Rotary Lip Seals

**Material Data Sheet**

Material: Polyshell-05

Similar to Polyshell-04 with increased filler extending part life. The increased filler allows this material to perform at a higher temperature than Polyshell-04. The increased hardness allows the material to be more effective when concerned with extrusion gaps and temperature fluctuation.

Physical Properties	Value	Units
Density		lb/in <sup>3</sup>
Water Absorption Immersion 24 hours		%
<b>Mechanical Properties</b>		
Specific Gravity	2.04	
Tensile Strength @ Yield, 73°F	1,600	psi
Tensile Elongation @ Break, 73°F	50	%
Flexural Strength, 73°F	1,000	psi
Flexural Modulus of Elasticity	185,000	psi
Compressive Strength 10% Deformation	1,700	psi
Compressive Modulus of Elasticity, 73°F	165,000	psi
Hardness, Durometer	66	"D" Scale
Maximum Limiting PV	15,000 @ 10 fpm	psi x ft/min
Maximum Limiting PV	12,000 @ 1,00 fpm	psi x ft/min
<b>Electrical Properties</b>		
Dielectric Constant		
Dielectric Strength		V/mil
Dissipation Factor		
Arc Resistance		sec
<b>Thermal Properties</b>		
Coefficient of Linear Thermal Expansion	7.5	in/in/°F x 10 <sup>-5</sup>
Thermal Conductivity	4.37	BTU-in/hr-ft <sup>2</sup> -°F
Maximum Service Temperature, Air		°F
Flammability, UL94		

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\*The values shown in these and the following charts are typical, average properties. Actual values may differ due to variations in resin formulations and processing methods. These values are obtained from sources believed to be reliable, including the resin manufacturers, converters and other published sources. However, they should not be used for specification or design purposes.