

# Rulon® LR

The following table is a list of typical physical property values for Rulon® LR

Properties	ASTM	Units [Metric]	Value [Metric]
<b>GENERAL</b>			
Specific Gravity	D792	—	2.25
Hardness Shore D	D2240	—	60 to 75
Water Absorption	D570	%	0
<b>MECHANICAL</b>			
Tensile Strength	D4894	psi [MPa]	1,500 [10.3]
Elongation	D4894	%	150
Deformation under load 1500 psi, 24 Hrs., RT	D621	%	3.0
Izod Impact Strength (notched)	D256	FT-lb/in [J/m]	6.0 [320]
<b>THERMAL</b>			
Thermal Conductivity	D2214	BTU in/hr ft <sup>2</sup> °F [W/m.K]	2.3 [0.33]
Flammability	D635	In/min [m/s]	Non-flammable
<b>ELECTRICAL</b>			
Dielectric Strength, .080" thick	D149	V/mil [MV/m]	400 [15.7]
Dielectric Strength, .010" thick	D149	V/mil [MV/m]	900 [35.5]
Dielectric Constant	D150	—	2.5
Dissipation Factor	D150	—	.001 – .004
Surface Resistivity	D257	Ohm-Sq	2 x 10 <sup>13</sup>
Volume Resistivity	D257	Ohm-cm	1 x 10 <sup>15</sup>
<b>RECOMMENDED OPERATING LIMITS</b>			
Maximum Pressure (P)	—	psi [MPa]	1,000 [6.9]
Maximum Velocity (V) no pressure	—	ft/min [m/s]	400 [2]
Maximum PV (P x V)	—	psi x ft/min [MPa x m/s]	10,000 [0.35]
<b>Minimum Mating Surface Hardness</b>			
Rockwell Scale	—	—	Rc35
Brinnell Scale	—	—	327
<b>Tribological</b>			
Friction – static & dynamic	—	—	0.15 – 0.25

## Features / Benefits

- Compatible with most hardened steel substrates
- Chemical Inertness
- Long life & reliability in continuous non-lubricated applications

## Working Temperature Range

- 400 °F to + 550 °F  
[- 240 °C to + 288 °C]

## Color

- Maroon

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Coefficient of Thermal Expansion		x 10 <sup>-5</sup> m/m°C		x 10 <sup>-5</sup> in/in/°F	
ASTM D696		Cross Direction	Molded Direction	Cross Direction	Molded Direction
-125 to +77 °F	-87 to +25 °C	7.2	11.7	4.0	6.5
-75 to +77 °F	-59 to +25 °C	8.1	13.3	4.5	7.4
-24 to +77 °F	-31 to +25 °C	9.5	16.5	5.3	9.2
0 to +77 °F	-18 to +25 °C	10.2	18.5	5.7	10.3
+32 to +77 °F	0 to +25 °C	11.8	21.9	6.6	12.2
+48 to +77 °F	+9 to +25 °	10.4	15.3	5.8	8.5
+77 to +150 °F	+ 25 to +66 °C	7.0	9.2	3.9	5.1
+77 to +250 °F	+ 25 to +121 °C	7.7	9.5	4.3	5.3
+77 to +350 °F	+ 25 to +177 °C	9.2	10.6	5.1	5.9
+77 to +450 °F	+ 25 to +232 °C	11.1	12.2	6.2	6.8
+77 to +550 °F	+ 25 to +288 °C	14.7	15.6	8.2	8.7

Cross Direction: Parallel to length of molded or extruded rod or tube.

Molded Direction: Perpendicular to length of molded or extruded rod or tube.

**NOTE:** The data listed here falls within the normal range of properties but should not be used to establish specification limits nor used alone as the basis of design. Saint-Gobain Performance Plastics assumes no obligation or liability for any advice furnished by it or for results obtained with respect to the products.