



# Rulon

## TYPICAL PROPERTIES of RULON<sup>®</sup> filled PTFE

ASTM or UL test	Property	Rulon <sup>®</sup> LR (maroon)	Rulon <sup>®</sup> J (gold)	Rulon <sup>®</sup> 641 (white)	Rulon <sup>®</sup> AR (maroon)
<b>PHYSICAL</b>					
D792	Density (lb/in <sup>3</sup> ) (g/cm <sup>3</sup> )	0.082 2.27	0.070 1.95	0.081 2.25	0.081 2.24
D2240	Hardness, Shore D	60-75	60	60	60-75
D570	Water Absorption, 24 hrs (%)	0	0	0	0
<b>MECHANICAL</b>					
D1457	Tensile Strength (psi)	1,500	2,000	2,000	2,000
D1457	Tensile Elongation at Yield (%)	150	180	175	175
D256	IZOD Notched Impact (ft-lb/in)	6.0	-	-	6.0
<b>THERMAL</b>					
D696	Coefficient of Linear Thermal Expansion (x 10 <sup>-5</sup> in./in./°F)	varies widely with temperature			
Cenco-Fitch	Thermal Conductivity (BTU-in/ft <sup>2</sup> -hr-°F) (x 10 <sup>-4</sup> cal/cm-sec-°C)	2.30 7.92	1.70 5.86	2.60 8.96	2.30 7.92
D635	Flammability (in/min)	None	None	None	None
<b>ELECTRICAL</b>					
D149	Dielectric Strength (V/mil) short time, .08" thick	400-500	200	-	400-500
D150	Dielectric Constant at 1 MHz	2.5	2.4	-	2.5
D150	Dissipation Factor at 1 MHz	0.003	0.001	-	0.003
D257	Surface Resistivity (ohm-cm) at 50% RH	2 x 10 <sup>13</sup>	6 x 10 <sup>18</sup>	-	2 x 10 <sup>13</sup>
D257	Volume Resistivity (ohm-cm) at 50% RH	1 x 10 <sup>15</sup>	8 x 10 <sup>18</sup>	-	1 x 10 <sup>15</sup>
<b>RECOMMENDED OPERATING LIMITS</b>					
	Maximum Load (psi)	1,000	1,000	1,000	1,000
	Maximum Velocity with No Pressure (ft/min)	400	400	400	400
	Maximum PV Rating (psi x ft/min)	10,000	10,000	10,000	10,000
	Maximum Operating Temp (°F / °C)	500 / 260	500 / 260	500 / 260	500 / 260
	Minimum Operating Temp (°F / °C)	-450 / -240	-450 / -240	-450 / -240	-450 / -240
	Minimum Mating Surface Hardness (Rockwell)	C35	B25	B25	C35

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets.  
All values at 73°F (23°C) unless otherwise noted.