

MATERIAL DATASHEET

RULON® 641

Features: White, FDA compliant, Chemically inert, Compatible with a wide array of mating materials

Benefits: Excellent continuous non-lubricated service up to 10,000 PV Working Temperature Range: -240° to +288°C [-400° to +550°F]

Properties	Test Methods	Typical Values	Units
PHYSICAL			
Specific Gravity	ASTM D792	2.20	--
Hardness	ASTM D2240	55 – 65	Shore D
Water Absorption, 24hr	ASTM D570	0	%
MECHANICAL			
Tensile Strength	ASTM D4894	21.4 [3,100]	MPa [psi]
Elongation	ASTM D4894	250	%
Compressive Stress @ 1% Strain	ASTM D695	5.9 [855]	MPa [psi]
Compressive Modulus	ASTM D695	0.6 [0.90]	GPa [psi x 10 ⁵]
Flexural Stress @ 1% Strain	ASTM D790	6.0 [875]	MPa [psi]
Flexural Modulus	ASTM D790	0.6 [0.85]	GPa [psi x 10 ⁵]
Deformation under load, 1500 psi & RT	ASTM D621	3.5	%
THERMAL			
Flammability	ASTM D635	Non-flammable	m/s [in/min]
Linear Coefficient of Thermal expansion 26°to 149°C [78°to 300°F] Diameter	ASTM D696	11.5/9.7 [6.4/5.4]	m/m/°C x 10 ⁻⁵ [in/in/°F x 10 ⁻⁵]
ELECTRICAL			
Dielectric Constant (Freq. = 1 MHz)	ASTM D150	2.2	-
Dielectric Strength (2.5 mm [0.010"] thick)	ASTM D149	27.6 [700]	MV/m [V/mil]
Dissipation Factor (Freq. = 1 MHz)	ASTM D149	0.001 - 0.0015	-
TRIBOLOGICAL			
Coefficient of Friction	-	0.10 - 0.30	-
OPERATING LIMITS MATING SURFACE			
Maximum Pressure	-	6.9 [1,000]	MPa [psi]
Maximum Velocity (no pressure)	-	2 [400]	m/s [ft/min]
Maximum PV	-	0.35 [10,000]	MPa x m/s [psi x ft/min]
Rockwell / Brinnell Scale	-	Rb25/64	Minimum

The table above represents typical values, intended for reference only. They should NOT be used as a basis for design specifications or quality control. Rulon® is a registered trademark. © 2024 Omniseal Solutions.