GYLON® Style 3503 – OXYGEN SERVICE

MATERIAL PROPERTIES*:

Color:	Off –White
Composition:	PTFE with barium sulfate
Fluid Services (see chemical resistance guide)**:**	Oxygen service, strong caustics, moderate acids, chlorine, gases, water, steam, hydrocarbons, cryogenics and aluminum fluoride
Temperature[1], °F (°C)	
Minimum:	-450 (-268)
Maximum:	+500 (+260)
Pressure[1], Maximum, psig (bar):	1200 (83)
P x T (max.)[1], psig x °F (bar x °C):	
1/32 and 1/16”:	350,000 (12,000)
1/8”	250,000 (8,600)
Flammability:	Will Not Support Flame
Bacterial Growth:	Will Not Support
Meets Specifications:	FDA (Food and Drug Administration) 21 CFR 177.1550

TYPICAL PHYSICAL PROPERTIES*:

ASTM F36	**Compressibility**, average, %:	4-10		
ASTM F36	**Recovery**, %:	40		
ASTM F38	**Creep Relaxation,** %:	11		
ASTM D1708	**Tensile**, Across Grain, psi (N/mm^2):	2000 (13.8)		
ASTM D792	**Specific Gravity:**	2.80		
ASTM D1708	**Modulus @ 100% Elongation**, psi (N/mm^2):	1400 (9.6)		
ASTM F433	**Thermal Conductivity (K),** W/m°K (Btu.·in./hr.·ft.^{2}·°F):	0.29-0.38 (2.00-2.65)		
ASTM D149	**Dielectric Properties,** range, volts/mil.			
	Sample conditioning	1/16”		1/8”
	3 hours at 250°F	466[(2)]		-
	96 hours at 100% Relative Humidity:	59		-
ASTM F586	**Design Factors**	1/16” & Under		1/8”
	"m" factor:	2.0		2.0
	"y" factor, psi (N/mm^2):	2350 (16.2)		2500 (17.2)
ROTT	**Gasket Constants:**			
	1/16”	Gb=289	a=0.274	Gs=6.61x10^{-11}
	1/8”	Gb=444	a=0.332	Gs=1.29x10^{-2}

SEALING CHARACTERISTICS*

	ASTM F37B – Fuel A	DIN 3535 – Nitrogen
Gasket Load, psi (N/mm2):	1000 (7)	4640 (32)
Internal Pressure, psig (bar):	9.8 (0.7)	580 (40)
Leakage	**0.04 ml/hr.**	**<0.015 cc/min**

Notes:

* This is a general guide and should not be the sole means of selecting or rejecting this material. ASTM test results in accordance with ASTM F-104; properties

[1] Based on ANSI RF flanges at our preferred torque. When approaching maximum pressure, continuous operating temperature, minimum temperature or 50% of maximum PxT, consult Garlock Applications Engineering. Minimum temperature rating is conservative.

[2] Indicates that the current arced around and not through the gasket. Dielectric strength will be higher than published.

12/1/2016

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