GYLON® Style 3505 – OXYGEN SERVICE

MATERIAL PROPERTIES*:

Color:	Blue
Composition:	PTFE with Aluminosilicate microspheres
Fluid Services (see chemical resistance guide)**:**	Oxygen service, many acids, some caustics, hydrocarbons, solvents, hydrogen peroxide, refrigerants and cryogenics
Temperature[1], °F (°C)	
Minimum:	-450 (-268)
Maximum:	+500 (+260)
Ideal Operating Limit:	+400 (+204)
Pressure[1], psig (bar):	
Minimum:	Full Vacuum
Maximum:	800 (55)
Ideal Operating Limit:	750 (52)
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:	NSF 61 (National Sanitation Foundation) approved for potable water, FDA Compliant 21 CFR 177.1550

TYPICAL PHYSICAL PROPERTIES*:

ASTM F36	**Compressibility**, average, %:	25-45		
ASTM F36	**Recovery**, %:	30		
ASTM F38	**Creep Relaxation,** %:	40.0		
ASTM D1708	**Tensile**, psi (N/mm^2):	2000 (13.8)		
ASTM D792	**Specific Gravity:**	1.70		
ASTM D1708	**Modulus @ 100% Elongation**, psi (N/mm^2):	1500 (10.3)		
ASTM F433	**Thermal Conductivity (K),** W/m°K (Btu.·in./hr.·ft.^{2}·°F):	0.14-0.24 (1.00-1.65)		
ASTM D149	**Dielectric Properties,** range, volts/mil.			
	Sample conditioning	1/16"		1/8"
	3 hours at 250°F	318		-
	96 hours at 100% Relative Humidity:	245		-
	Oil Bath (submersed to prevent arching)	310		281
ASTM F586	**Design Factors**	1/16" & Under		1/8"
	"m" factor:	3.0		2.5
	"y" factor, psi (N/mm^2):	1650 (11.4)		3000 (20.7)
ROTT	**Gasket Constants:**			
	1/16"	Gb=183	a=0.357	Gs=4.01x10^{-3}
	1/8"	Gb=1008	a=0.221	Gs=2.23

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	**0.12 ml/hr.**	**<0.015 cc/min**

8/15/2023

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.

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