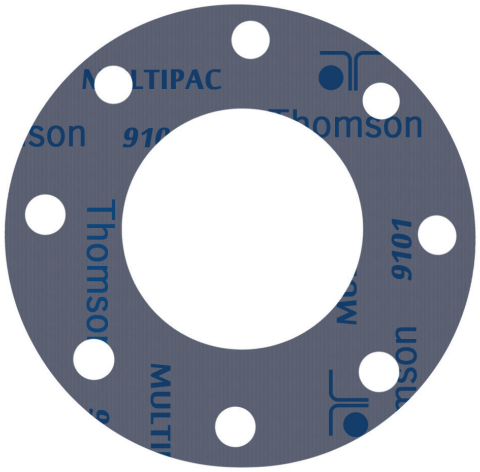
MULTIPAC 9101

Carbon fiber / Nitrile binder



Specifications

Material:
Carbon fiber / Nitrile binder

Temperature, max:
Minimum: -100°F (-73°C)
Continuous, max.: +650°F (+343°C)
Intermittent: +825°F (440°C)
For saturated steam applications above 150 lbs. contact A.R. Thomson Group

Tensile Strength
1,800 psi across grain

Pressure, max:
2,000 psig (138 bar)

PxT (max) psig x °F (bar x °C)
1/32" & 1/16" 700,000 (25,000)
1/8" 350,000 (12,000)

Color:
Black

Benefits

- The single solution for compressed fiber gasketing due to its high temperature capability, steam and chemical resistance
- Flexible material - easy to cut
- Reduces Maintenance - maintains effective seal during pressure and thermal cycling (Superior Torque retention)

Ideal for

- General service sheet packing material for demanding applications in chemical, pulp and paper, petroleum, power generation and high temperature service in all industries
- Saturated steam to 150 lbs., water, oils, gasoline, aliphatic hydrocarbons and most refrigerants
- Meets FIRE SAFE specifications

"M & Y" Factors

	Thickness		"m"	"y"		
	inches	mm	(no units)	psi	N/mm²	kgf/mm²
9101	1/16	1.6	6.5	2550	17.6	1.79
	1/8	3.2	8.0	2800	19.3	1.97

Actual performance may vary and is determined by factors unique to a given application. It is recommended that care be taken in the selection and application of materials for hazardous services and controlled testing be undertaken to determine suitability for a specific application.

Physical Properties*

Test Method	Typical Physical Properties		
ASTM F36	**Compressibility,** range, %	7–17	
ASTM F36	**Recovery,** %	55	
ASTM F38	**Creep Relaxation,** %	15	
ASTM F152	**Tensile,** Across Grain, psi (N/mm^2)	1800 (12)	
ASTM F1315	**Density,** lbs./ft.^{3} (grams/cm^3)	105 (1.68)	
ASTM F433	**Thermal Conductivity (K),** W/m°K (Btu.·in./hr.·ft.^{2}·°F):	0.50-0.60 (3.50-4.15)	
ASTM D149	**Dielectric Properties**, range, volts/mil.		
	Sample conditioning	**1/16"**	**1/8"**
	3 hours at 250°F:	<2	-
	96 hours at 100% Relative Humidity:	-	-
ASTM F586	**Design Factors**	**1/16"**	**1/8"**
	"m" factor:	6.5	8
	"y" factor, psi (N/mm^2):	2550 (17.6)	2800 (19.3)
ROTT	**Gaskets Constants,** 1/16":	Gb=1,591 a=0.239 Gs=9.3	
ASTM F104	**Line Call Out:**	F712102A9B5E33K5L101M5 (1)	

Immersion Properties* - ASTM F146 Fluid Resistance after Five Hours

	ASTM #1 OIL 300°F (150°C)	ASTM IRM #903 300°F (150°C)	ASTM FUEL A 70-85°F (20-30°C)	ASTM FUEL B 70-85°F (20-30°C)
Thickness Increase, (%)	0-5	0-10	0-5	0-10
Weight Increase, (%)	<10	-	<7	<15
Tensile Loss, (%)	-	<35	-	-

Sealing Characteristics*

	ASTM F37B FUEL A	ASTM F37B NITROGEN	DIN 3535- 4 GAS PERMEABILITY
Gasket Load, psi (N/mm^2):	500 (3.5)	3000 (20.7)	4640 (32)
Internal Pressure, psig (bar):	9.8 (0.7)	30 (2)	580 (40)
Leakage:	**0.6 ml/hr.**	**1.2 ml/hr.**	**0.015 cc/min**

AUTHORIZED DISTRIBUTOR

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 based on 1/32" (0.8mm) sheet thickness unless otherwise mentioned.

* Values do not constitute specification Limits

(1) A9: Leakage in Fuel A (Isooctane), Gasket Load = 500psi (3.5N/mm2), Pressure = 9.8psig (0.7bar): Typical = 0.25ml/hr, Max = 1.5ml/hr. A9: Leakage in Nitrogen, Gasket Load = 3,000psi (20.7N/mm2), Pressure = 30psig (2bar): Typical = 1.0ml/hr, Max = 2.5ml/hr.

ARTG12416