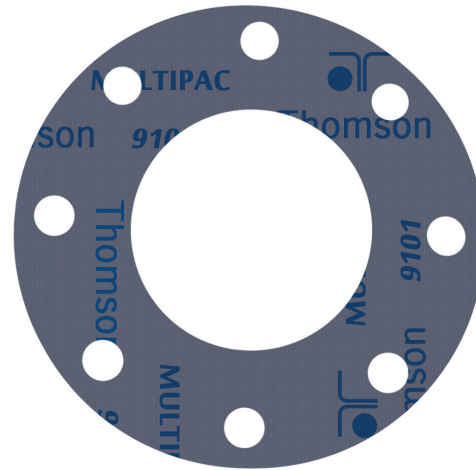


# MULTIPAC 9101

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" (no units)	"y"		
	inches	mm		psi	N/mm <sup>2</sup>	kgf/mm <sup>2</sup>
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	<b>Compressibility</b> , range, %	7-17
ASTM F36	<b>Recovery</b> , %	55
ASTM F38	<b>Creep Relaxation</b> , %	15
ASTM F152	<b>Tensile</b> , Across Grain, psi (N/mm <sup>2</sup> )	1800 (12)
ASTM F1315	<b>Density</b> , lbs./ft. <sup>3</sup> (grams/cm <sup>3</sup> )	105 (1.68)
ASTM F433	<b>Thermal Conductivity (K)</b> , W/m <sup>2</sup> K (Btu.·in./hr.·ft. <sup>2</sup> ·°F):	0.50-0.60 (3.50-4.15)
ASTM D149	<b>Dielectric Properties</b> , range, volts/mil.	
	Sample conditioning	<b>1/16"</b> <b>1/8"</b>
	3 hours at 250°F:	<2      -
	96 hours at 100% Relative Humidity:	-      -
ASTM F586	<b>Design Factors</b>	<b>1/16"</b> <b>1/8"</b>
	“m” factor:	6.5      8
	“y” factor, psi (N/mm <sup>2</sup> ):	2550 (17.6)      2800 (19.3)
ROTT	<b>Gaskets Constants</b> , 1/16":	Gb=1,591    a=0.239    Gs=9.3
ASTM F104	<b>Line Call Out:</b>	F712102A9B5E33K5L101M5 <sup>(1)</sup>

## 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 <sup>2</sup> ):	500 (3.5)	3000 (20.7)	4640 (32)
Internal Pressure, psig (bar):	9.8 (0.7)	30 (2)	580 (40)
Leakage:	<b>0.6 ml/hr.</b>	<b>1.2 ml/hr.</b>	<b>0.015 cc/min</b>

## 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

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

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