

TECHNICAL DATA SHEET

MACER UNIVERSAL AF

Material profile

The main components are Carbon fibres with NBR Binder.

Application

Suitable for oils, fuels, lubricants, alcohols, gases, hydrocarbons, steam, water, cooling liquids, most diluted acids and alkalies for medium stress conditions.

Dimensions of the standard sheets : $\pm 10\%$

1500 x 1500, 1500 x 2000, 1500 x 4000 mm
Standard Thickness : 0.40 mm to 5.00 mm

Thickness Tolerance :

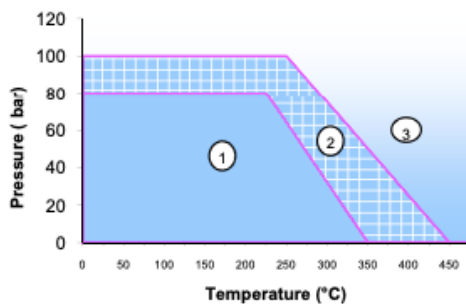
$\leq 1.00 \text{ mm} \pm 0.10 \text{ mm}$, $> 1.00 \text{ mm} \pm 10 \% \text{ mm}$
combustion engines.

Surface finish : Black Colour (other Colour on Customer requirement)

Specification Compliance : ASTM F 104 Line Call Out : F 712122E23 A9 B9 M9

Max. peak temperature : 440°C

Max. Operating pressure : 100 bar



Areas of application

1. Suitable for the application, subject to chemical compatibility.
2. Only for short term temp. excursions
3. Do not install the gasket without technical assistance

Physical Properties (Properties applicable for 2.0mm thickness)

Properties	Test Method	Unit	Specified Value
1. Density	ASTM F 1315	g/cm ³	1.6 - 1.9
2. Compressibility	ASTM F 36 J	%	7 - 17
3. Recovery	ASTM F 36 J	%	≥ 40
4. Tensile Strength	ASTM F 152	N/mm ²	≥ 8
5. Creep Relaxation	ASTM F 38 B	%	≤ 30
6 Stress Relaxation (16h, 175°C)	DIN 52913		≥ 20
7. Gas Sealability	ASTM F 37B	ml/hour	≤ 1.0
8. ASTM Oil no. 3 (5h, 150°C)	ASTM F 146		
Thickness increase		%	≤ 10
Weight increase		%	≤ 10
ASTM Fuel B (5h, 23°C)	ASTM F 146		
Thickness increase		%	≤ 10
Weight increase		%	≤ 10
Water (5h, 100°C)	ASTM F 146		
Thickness increase		%	≤ 10
Weight increase		%	≤ 10

All information & recommendations given in this brochure are correct to the best of our knowledge. However, in view of the wide variety of possible installation & operating conditions one cannot draw the final conclusion in all application cases regarding the behaviour in a gasket joint. Therefore, information can only serve as a guideline.