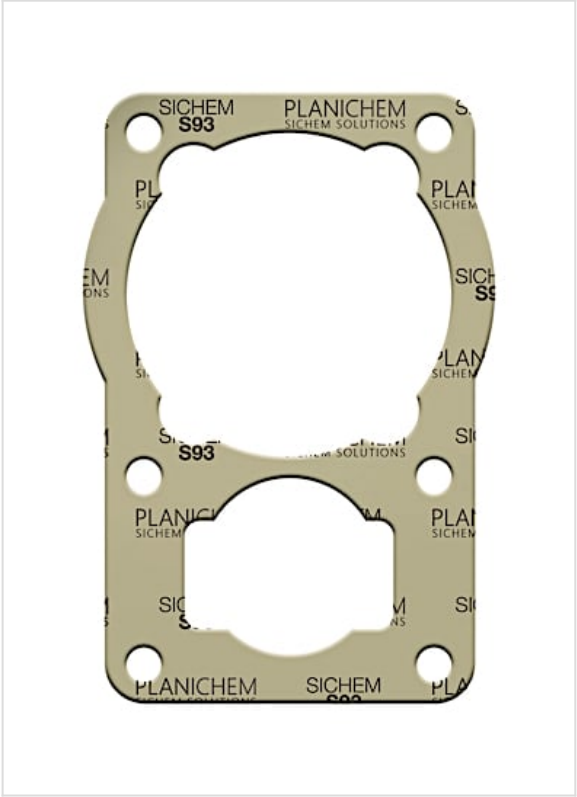
PLANICHEM
SICHEM SOLUTIONS

SICHEM S93



SICHEM® S93 is a **biaxially oriented modified microcellular PTFE gasket sheet filled with mica**, a mineral-based filler known for its **high heat resistance, excellent dielectric strength, and outstanding chemical stability**.

The **multidirectional molecular structure** and the **mica-based filler** provide the material with **excellent mechanical performance**, superior **resistance to hot creep**, and **optimal thermal and dimensional stability**, even under **prolonged loads**.

High chemical and high-temperature resistance: mica is resistant to many chemical agents, making it suitable for operation in **corrosive environments**, including exposure to **solvents and oxidizing agents**. PTFE cannot be used with **molten alkali metals, elemental fluorine (F_2), or fluorinated gases**. PTFE is not compatible with: **bromine trifluoride, chlorine trifluoride, fluorine dioxide, hydrogen fluoride, molten alkali metals, elemental lithium, elemental potassium, and elemental sodium**. For compatibility with the filler materials used in the Sichem range, please refer to the **Chemical Compatibility List**.

Superior mechanical stability: the biaxial orientation improves resistance to **creep and permanent deformation**.

Excellent machinability: easy to **punch and CNC cut**, ensuring precision even for complex geometries.

Low permeability coefficient: ideal for applications requiring **long-term tight sealing**.

Operating temperature: from **–200°C to +260°C**, depending on the type of fluid and the applied load.

Bidirectional PTFE	Sichem S93
Composition	Microcellular Modified PTFE with mica
Density ASTMF 1315	1.2 g/cm³
Minimum operating temperature	-260 °C
Maximum operating temperature	+260 °C
Max operating pressure	50 bar
P x T Max.(Thk 0.8 - 2.0 mm)	12000 Bar x °C
P x T Max. (Thk 3.0 mm)	8500 Bar x °C
Leakage DIN 3535-6	<0.001 mg*s-1*m-1
Creep relaxation DIN 3535-6	<16 %
Compressibility DIN 3535-6	>50 %
Recovery DIN 3535-6	>5 %
Minimum PH	0
Maximum PH	14
Available sheets size	1.500x1.500 mm
Available thickness	0.75 ÷ 6.00 mm
Sheet size tolerance	50 mm
Thickness tolerance	10 %

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