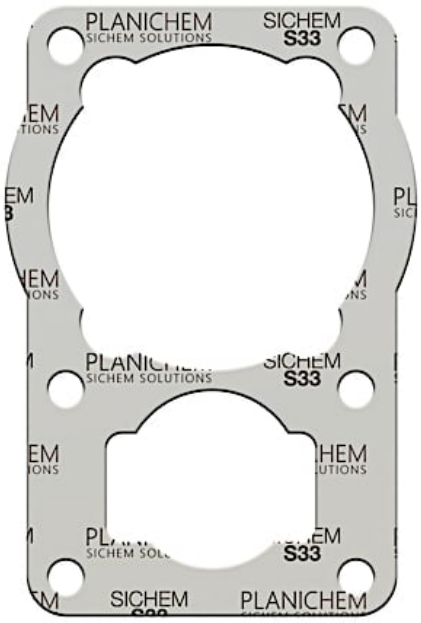
PLANICHEM
SICHEM SOLUTIONS

SICHEM S33



SICHEM® S33 is a multidirectionally modified PTFE gasket sheet filled with barium sulfate. It is designed for critical sealing applications in the presence of strong bases, such as sodium hydroxide, potassium hydroxide, and calcium hydroxide, under severe operating conditions. The bi-oriented molecular structure and the barium sulfate filler provide the material with excellent mechanical performance, superior resistance to hot creep, and optimal dimensional stability, even under high and prolonged loads.

High chemical resistance: compatible with strong bases, hydrocarbons, steam, and moderate acids. 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 or 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 S33
Composition	Modified PTFE with Barium sulphate filler
Density ASTMF 1315	2.8 g/cm³
Minimum operating temperature	-260 °C
Maximum operating temperature	260 °C
Max operating pressure	80 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	<0.05 mg*s-1*m-1
Creep relaxation DIN 3535-6	<28 %
Compressibility DIN 3535-6	>4.3 %
Recovery DIN 3535-6	>2.1 %
Minimum PH	0
Maximum PH	14
Available sheets size	1500x1500 mm 1750x1750 mm
Available thickness	0.75 ÷ 6.00 mm
Sheet size tolerance	50 mm
Thickness tolerance	10 %

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