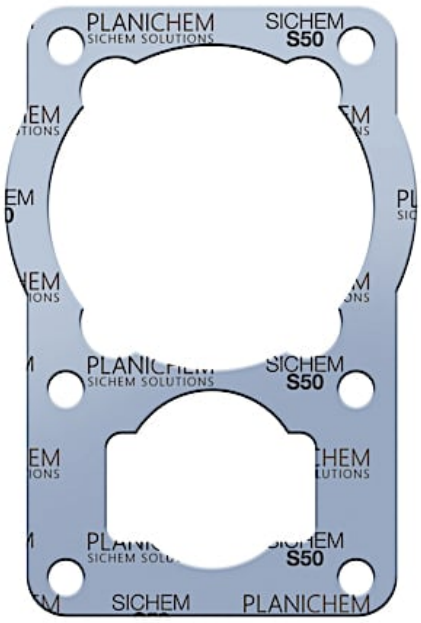
PLANICHEM
SICHEM SOLUTIONS

SICHEM S50



SICHEM® S50 is a gasket sheet made of **biaxially oriented modified PTFE**, filled with **hollow glass microspheres**, designed for applications where a more **compressible and conformable material** is required, even on worn flange surfaces. The multidirectional molecular structure and the hollow sphere filler provide the material with excellent mechanical performance, superior resistance to hot creep, and optimal dimensional stability, even under prolonged loads.

High chemical resistance: compatible with moderate acids and bases, solvents, and hydrocarbons. 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 S50
Composition	Modified PTFE with Hollow Glass microspheres filler
Density ASTMF 1315	1.4 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	<0.05 mg*s-1*m-1
Creep relaxation DIN 3535-6	<19 %
Compressibility DIN 3535-6	>32 %
Recovery DIN 3535-6	>7 %
Minimum PH	0
Maximum PH	14
Available sheets size	1500x1500 mm 1750x1750 mm
Available thickness	0.75 ÷ 6.00 mm
Thickness tolerance	+/- 10 %
Sheet size tolerance	+/- 50 mm
Chemical Compatibility Limits	Not compatible with fluorinated compounds and molten salts

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