PLANICHEM
SICHEM SOLUTIONS

SICHEM S92

SICHEM® S92 is a **multidirectional microcellular pure PTFE gasket sheet filled with graphite**. The **thermal stability of PTFE** is particularly important, especially in **high-temperature chemical industry applications**. The multidirectional structure provides the material with **excellent mechanical performance**, superior **resistance to hot creep**, and **optimal dimensional stability**, even under **prolonged loads**.

High chemical resistance: compatible with a wide range of chemicals, including **acidic and alkaline environments, 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 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 S92
Composition	Microcellular Modified PTFE with graphite
Density ASTMF 1315	1.45 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	<0.005 mg*s-1*m-1
Creep relaxation DIN 3535-6	<27 %
Compressibility DIN 3535-6	>42 %
Recovery DIN 3535-6	>12 %
Minimum PH	0
Maximum PH	14
Available sheets size	1.500x1.500 mm 1.750x1.750 mm
Available thickness	0.75 ÷ 6.00 mm
Sheet size tolerance	50 mm
Thickness tolerance	10 %

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