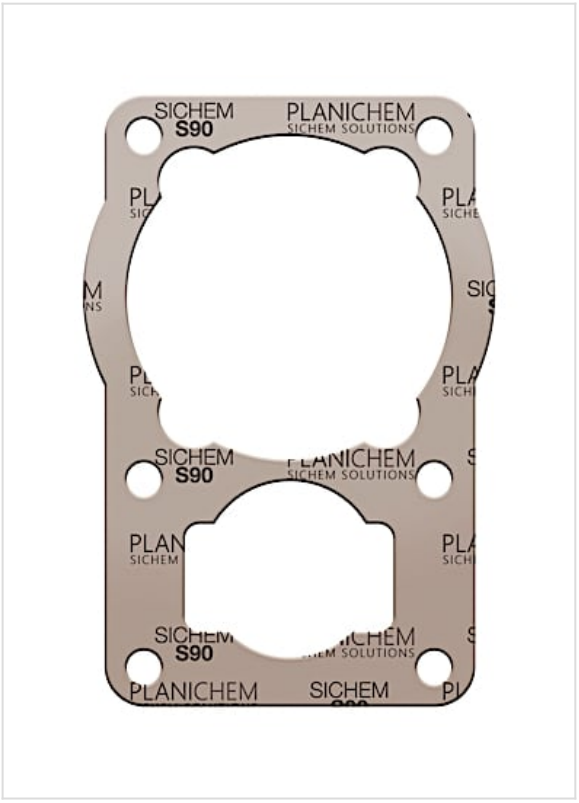
PLANICHEM
SICHEM SOLUTIONS

# SICHEM S90




**SICHEM® S90** is a **biaxially oriented modified microcellular PTFE gasket sheet filled with silica**. Its **high compressibility** makes it suitable for use on **irregular or damaged surfaces**, making it ideal for **lined or non-metallic flanges** and for applications with **low bolt loads**.

The multidirectional structure provides the material with **excellent mechanical performance**, improving **resistance to hot creep** and ensuring **optimal dimensional stability**, even under **low and prolonged loads**.

**High chemical resistance:** compatible with a wide range of **non-alkaline chemicals and petrochemicals**, including **aggressive acids, hydrocarbons, and solvents**. 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 S90 |
|---|---|
| **Composition** | Microcellular Modified PTFE with Silica filler |
| **Density ASTMF 1315** | 1.35 g/cm³ |
| **Minimum operating temperature** | -260 °C |
| **Maximum operating temperature** | +260 °C |
| **Max operating pressure** | 70 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** | <0.003 mg*s-1*m-1 |
| **Creep relaxation DIN 3535-6** | <14 % |
| **Compressibility DIN 3535-6** | >40 % |
| **Recovery DIN 3535-6** | >6 % |
| **Minimum PH** | 0 |
| **Maximum PH** | 14 |
| **Available sheets size** | 1.500x1.500 mm<br>1.750x1.750 mm |
| **Available thickness** | 0.75 ÷ 6.00 mm |
| **Sheet size tolerance** | 50 mm |
| **Thickness tolerance** | 10 % |



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