



**SICHEM® S91** is a **biaxially oriented modified microcellular PTFE gasket sheet filled with barium sulfate**. Thanks to its **high compressibility**, it is suitable for use on **irregular or damaged surfaces** and is particularly well suited for **lined or non-metallic flanges 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 chemicals, including **moderate acids and strong bases**, such as **potassium hydroxide and sodium hydroxide**. 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 S91
Composition	Microcellular Modified PTFE with Barium sulphate filler
Density ASTM F 1315	2.0 g/cm <sup>3</sup>
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	<0.005 mg*s <sup>-1</sup> *m <sup>-1</sup>
Creep relaxation DIN 3535-6	<18 %
Compressibility DIN 3535-6	>35 %
Recovery DIN 3535-6	>6 %
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 %



The information in this publication, as well as any additional information provided to users, is based on experience and is shared to the best of our current knowledge. However, due to numerous factors beyond our knowledge and control that may affect the use of these products, no warranties are provided or implied regarding this information. The operating limits presented in this publication do not imply that these values can be applied simultaneously. Do not use the product at the maximum temperature and pressure values simultaneously. The maximum temperature is suitable only for short-term exposure under specific conditions. Specifications are subject to change without prior notice. The picture in the DS may not accurately depict the exact color and/or markings of the product.