

PTFE SC1100
PTFE WITH GLASS FIBER

SC1100 is a high-performance gasket material composed of PTFE with glass fiber fillers. This unique combination significantly enhances the product's mechanical strength, wear resistance, and dimensional stability compared with virgin PTFE. **SC1100** is designed for demanding industrial applications, providing high chemical resistance, durability, and reliable sealing, even in extreme environments.

APPLICATIONS

SC1100 is commonly used for handling aggressive chemicals in the chemical processing, petrochemical, and pharmaceutical industries. SC1100 is engineered for demanding environments that require superior chemical resistance and durability. It excels in sealing applications exposed to acids, bases, and aggressive chemicals, making it suitable for a wide range of uses.

MATERIAL APPROVALS

- **(EC) No. 1935/2004:** Ensures compliance with European Union regulations for materials in contact with food.
- **REG EU 10/2011:** Compliant with regulations for food contact materials within the EU.
- **EC 2023/2006:** Ensures good manufacturing practice (GMP) for materials and articles intended to come into contact with food, in line with European safety standards.
- **FDA 177.1550:** Certified safe for use in food applications by the U.S. Food and Drug Administration.

PTFE SC1100			
TYPICAL PROPERTIES	UNIT	METHOD	DATA
PHYSICAL			
Colour	-	-	Blue
Density	g/cm ³	ASTM D792	2,15 - 2,25
Compressibility range	%	ASTM F36	17-20
Recovery	%	ASTM F36	> 25
Max P x T	bar x °C	/	12000
Max Pressure	bar	/	80
Compression modulus at room temperature - 20 MPa KSW	%	DIN 28090-2	11
Creep Relaxation at room temperature - 1 MPa - KRW	%	DIN 28090-2	3
Compression modulus at 150°C - 20 Mpa - 16 hours WSW	%	DIN 28090-2	45
Creep Relaxation at 150°C - 1 MPa - 16 hours WRW	%	DIN 28090-2	4
Leakage rate	mg/(s·m)	DIN 28090-2	< 0,001
Leakage rate with nitrogen	cm ³ /min	DIN 3535	0,01
"y" factor (th=2mm)	PSI (N/mm ²)	ASTM 3149	2500 (17,20)
"m" factor (th=2mm)	-	ASTM 3149	4,4
THERMAL			
Service Temperature (Min-Max)	°C	/	- 200 / + 260
ELECTRICAL			
Volume Resistivity	Ω • cm	ASTM D257	10 ¹⁵
Surface Resistivity	Ω	ASTM D257	10 ¹⁵
*CD=Cross Direction			

Note: the data listed herein fall within the normal range of product properties described, but they should not be used to establish specification limits nor used alone as the basis of design. Guarniflon® Spa assumes no obligation or liability for any advice furnished by it or for results obtained to these products.

Contact us: EN13555-based test values are available for the calculation of tightness and bolt torque for chemical and pressurized equipment according to EN1591-1.

SC1100 KEY FEATURES

SC1100 is extensively used in industrial applications due to the addition of glass fiber, which enhances its compressive strength, wear resistance, and resistance to deformation and abrasion. With decades of continuous improvement and precise manufacturing, SC1100 has become known for its reliability and innovation. A final surface treatment further improves leak-tightness, reducing internal leakage.

The homogeneous blend of glass fibers with pure PTFE ensures SC1100's exceptional physical and mechanical properties, offering a unique combination of features:

- ✓ Strong mechanical performance and dimensional stability
- ✓ Minimized cold flow and excellent creep resistance
- ✓ Good compressibility and sealability
- ✓ Superior chemical resistance
- ✓ Non-flammable and non-aging
- ✓ No water absorption

TEMPERATURE AND PRESSURE RANGE

-200°C to +260°C, supports pressures up to 80 bar.

CHEMICAL PROPERTIES

PTFE SC1100 withstands all chemical agents except for alkaline metals, chlorotrifluoride and elemental fluorine at high temperature and pressure.

ELECTRICAL PROPERTIES

PTFE SC1100 is an excellent electrical insulator retaining its dielectric properties in a wide range of frequencies and temperatures with no substantial alterations up to 300°C.

SC1100 SHEET DIMENSION

Size (mm): 1500x1500

Thickness (mm): 1.0 / 1.5 / 2 / 3

Other sizes and thicknesses available on request

MAIN SEGMENT APPLICATIONS

CHEMICAL PROCESSING

FOOD & BEVERAGE

OIL & GAS

PETROLCHEMICAL

PULP & PAPER

RAILROAD TANKCAR INDUSTRIES

REFINING



www.tt-gaskets.fi/en/



+358 3 358 1500



sales@tt-gaskets.fi



Alasniitynkatu 14,
33560 Tampere-Finland