

**modified PTFE gasket sheet**  
**GUAFLON ROSE-SEAL**

TECHNICAL SHEET

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Premium-grade gasket material composed of modified PTFE, filled with tiny glass microspheres homogeneously dispersed throughout the compound, designed to provide the gasket of extra compressibility and compression strength. The formulation gives the material excellent gasket properties, such as outstanding tightness effectiveness with low assembly stress, even under high temperature applications. ROSE-SEAL complies with DIN 28091-3 (technical delivery conditions for PTFE-based gasket sheets).

**Applications:**

Especially designed for use with aggressive media in the chemical, petrol-chemical, pharmaceutical, paper and food industry; in presence of light flanges and whenever fugitive emissions control is required: i.e. toxic, polluting or high value media. Suitable for sealing of all chemicals with the exclusion of molten alkali metals, fluorine gas, hydrogen fluoride and materials that may generate these.

**Technical Data** (values relate to 2 mm thickness)

|   |             |             |                   |
|---|-------------|-------------|-------------------|
| Density   | ASTM D 1457 | 1,7         | g/cm <sup>3</sup> |
| Service limits (recommended)*:                                    |             |             |                   |
| Continuous service temperature range                              |             | -200 ÷ +260 | °C                |
| Max. service pressure   |             | 85          | bar               |
| Chemical application range  |             | 0 ÷ 14      | pH                |
| Compressibility   | ASTM F 36   | 10 ÷ 20     | %                 |
| Recovery  | ASTM F 36   | 50          | %                 |
| Creep relaxation (20 N/mm <sup>2</sup> , 100°C, 22 hrs)           | ASTM F 38   | 35          | %                 |
| Stress retention (30 N/mm <sup>2</sup> , 150°C, 16 hrs)           | DIN 52913   | 13          | %                 |
| Tensile Strength  | ASTM D 1457 | 11          | N/mm <sup>2</sup> |
| Gas permeability (N <sub>2</sub> , 40 bar, 30 N/mm <sup>2</sup> ) | DIN 3535/4  | < 0,02      | ml/min            |
| Compression Strength $\sigma_{VO}$ Room Temp.:                    | DIN 28090   | 220         | N/mm <sup>2</sup> |
| " " $\sigma_{BO}$ at 100°C:                                       | "           | 90          | N/mm <sup>2</sup> |
| " " $\sigma_{BO}$ at 200°C:                                       | "           | 60          | N/mm <sup>2</sup> |

Gasket factors according to ROTT test - future standard procedure for ASTM / ASME code (Draft '97)

*thickness: 1,5 mm:* Gb: 1,4 N/mm<sup>2</sup>  
 a: 0,36  
 Gs: 4·10<sup>-6</sup> N/mm<sup>2</sup>

|  |                     |        |        |        |
|--|---------------------|--------|--------|--------|
| ex.: assembly stress with RF flange 10" 150 lbs, RT, with nitrogen at: | 5 bar               | 20 bar | 40 bar | 80 bar |
| for tightness class "standard" (Tc = 1, leakage: 30 ml/min):           | N/mm <sup>2</sup> 4 | 6      | 13     | 25     |
| for tightness class "high" (Tc = 10, leakage: 0,3 ml/min):             | N/mm <sup>2</sup> 9 | 16     | 22     | 33     |

\* Service limits are recommended for proper seating conditions and gasket design. Max. temperature and max. pressure must not occur simultaneously.

**Supply data:**

Color: rose-lilac  
 Standard sheet size: 1200 x 1200 mm  
 Standard thickness: 1,0 ÷ 4,0 mm      Other thicknesses available upon request  
 Tolerances according to DIN 28091

GUAFLON sheets are available also with insertion of tanged perforated stainless steel sheet

GUAFLON jointing manufacture is quality assured in accordance with ISO 9001

Data here reported, corresponding to laboratory and field tests typical results, are meant as non-binding guideline for gasket selection. No guarantee claim can be inferred from these data. When needed, we shall be pleased to assist you with specific technical assistance.