

## Steam boiler sealing Type II

|                             |   |
|-----------------------------|---|
| <b>Article description:</b> | Steam boiler sealing Type II  |
| <b>Article forms:</b>       | Ovale closure sealing   |
| <b>Component labeling:</b>  | TÜV.D.23-017.d (Certification see page 3)   |
| <b>Colour:</b>              | Anthracite  |
| <b>Preparations:</b>        | Without any additionally preparations   |
| <b>Materials:</b>           | Gasket consisting of expanded graphite (purity of at least 98%) with perforated stainless steel insert (AISI 316, 0.1 mm) - thoenes SP <sup>TRD 401</sup> or expanded graphite seal (min. 98% purity) with stainless steel insert (AISI 316; 0.05 mm) - thoenes SL <sup>TRD 401</sup> |

### Mechanical properties:

**Permissible operating pressure:**

p = 40 bar

**Permissible cold water test pressure:**

p' = 88 bar

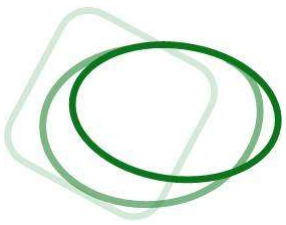
### Thermal properties:

**Permissible operating temperature:**

T = 250 °C

### Material specifications (manufacturer's instructions):

| Properties  | Method         | Material                      |                               |
|---|----------------|-------------------------------|-------------------------------|
|   |                | thoenes SP <sup>TRD 401</sup> | thoenes SL <sup>TRD 401</sup> |
| Compressibility   | ASTM F36       | 35 %                          | 45 %                          |
| Resilience  | ASTM F36       | 17 %                          | 13 %                          |
| Pressure resistance (16h, 300 °C)                       | DIN 52913      | 49 N/ mm <sup>2</sup>         | 49 N/ mm <sup>2</sup>         |
| Nitrogen permeability (40 bar), RT                      | DIN 3535/6     | < 0,05 mg/ (s.m.)             | < 0,05 mg/ (s.m.)             |
| Ash value   | DIN 51903      | < 1 %                         | < 1 %                         |
| Chloride content  | FSA NMG 202-02 | < 50 ppm                      | < 50 ppm                      |
| Fluoride content  | FSA NMG 202-02 | < 50 ppm                      | < 50 ppm                      |
| Density   | DIN 28090-2    | 1,0 g/m <sup>3</sup>          | 1,0 g/ cm <sup>3</sup>        |
| Modulus of deformation                                  |                |                               |                               |
| • At room temperature: $\epsilon_{KSW}$                 |                | 32 %                          | 41 %                          |
| • At elevated temperature: $\epsilon_{KSW/300^\circ C}$ |                | 1,2 %                         | 1,1 %                         |
| Setting value   |                |                               |                               |
| • At room temperature: $\epsilon_{KRW}$                 |                | 4,5 %                         | 4,5 %                         |
| • At elevated temperature: $\epsilon_{KRW/300^\circ C}$ |                | 4,0 %                         | 4,0 %                         |
| Recovery value R  | DIN 28090-2    | 0,086 mm                      | 0,080 mm                      |



Steam boiler sealings  
**Type II**

**Applications:**

Closure systems of steam and hot water boilers in accordance with VdTÜV „Dichtung 100“.

**Application limits:** The above information applies only to feed and boiler water in accordance with „TECH 1466“ as well as steam according to the VdTÜV guideline for feed water, boiler water and steam in steam generators.

**Dimensions:** Gaskets 2 and 3 mm in thickness and doubled/ laminated to 8 mm.