

Gasket Constants acc. DIN 28090-1, AD-Merkblatt B7, DIN V 2505

| DIN 28090 Part 1 (9/95) (DIN E 2505 Part 2) | | | | | | | | | | AD-Merkblatt B7 DIN V 2505 | | |
|---|-----------------------|----------------------|----------------------|-----|----------------------|-------|-------|-------|-------|---------------------------------|---------------------------------|----------------------|
| P _I | Thick. h _D | σ _{VU} * | σ _{VO} ** | m | σ _{BO} ** | | | | | b _D : h _D | k ₀ x K _D | k ₁ |
| [bar] | [mm] | [N/mm ²] | [N/mm ²] | | [N/mm ²] | | | | | | [N/mm] | [mm] |
| | | | | | 20°C | 100°C | 200°C | 300°C | 400°C | | | |
| 10 | 1.6 | 10 | 190 | 1.3 | 190 | 130 | 130 | 130 | 120 | 12.5 : 1 | 10 x b _D | 1.3 x b _D |
| | 2.0 | 10 | 140 | 1.3 | 140 | 130 | 130 | 130 | 120 | 10 : 1 | 10 x b _D | 1.3 x b _D |
| | 3.0 | 15 | 90 | 1.3 | 90 | 80 | 80 | 80 | 70 | 6.7 : 1 | 15 x b _D | 1.3 x b _D |
| 25 | 1.6 | 10 | 190 | 1.3 | 190 | 130 | 130 | 130 | 120 | 12.5 : 1 | 10 x b _D | 1.3 x b _D |
| | 2.0 | 10 | 140 | 1.3 | 140 | 130 | 130 | 130 | 120 | 10 : 1 | 10 x b _D | 1.3 x b _D |
| | 3.0 | 15 | 90 | 1.3 | 90 | 80 | 80 | 80 | 70 | 6.7 : 1 | 15 x b _D | 1.3 x b _D |
| 40 | 1.6 | 10 | 190 | 1.3 | 190 | 130 | 130 | 130 | 120 | 12.5 : 1 | 10 x b _D | 1.3 x b _D |
| | 2.0 | 11 | 140 | 1.3 | 140 | 130 | 130 | 130 | 120 | 10 : 1 | 11 x b _D | 1.3 x b _D |
| | 3.0 | 20 | 90 | 1.3 | 90 | 80 | 80 | 80 | 70 | 6.7 : 1 | 20 x b _D | 1.3 x b _D |
| 80 | 1.6 | 12 | 190 | 1.3 | 190 | 130 | 130 | 130 | 120 | 12.5 : 1 | 12 x b _D | 1.3 x b _D |
| | 2.0 | 16 | 140 | 1.3 | 140 | 130 | 130 | 130 | 120 | 10 : 1 | 16 x b _D | 1.3 x b _D |
| | 3.0 | 28 | 90 | 1.3 | 90 | 80 | 80 | 80 | 70 | 6.7 : 1 | 28 x b _D | 1.3 x b _D |

* σ_{VU} is determined with the gas leakage (N₂) = 0.1 mg/(s*m) (ca. 1.0 ml/min) acc. to DIN 28090-1 at test sample of dimension 90 x 50 mm

** σ_{VO}, σ_{BO} is determined according to DIN 28090-1 at test sample of dimension 90 x 50 mm

m The m-factor is a value to describe the minimum surface pressure under operating conditions. Up to now there does not exist a definite test specification. The m-factor can be looked at in different ways and depends on the tightness class, the temperature and the surface pressure in the installed state. Within the Brite EuRam research project m-factors between 1.3 and 3.8 were found as average values for graphite gaskets. The user may judge to calculate with different factors (e.g. m = 2).

Please note:

All previous data cease to apply. You may take all current versions from the website www.frenzelit.com or ask at Frenzelit directly. The values have been determined with standard laboratory equipment. In view of the variety of different installation and operation conditions and process engineering options, there is no basis for warranty claims referring to the behaviour of the sealing joint. Subject to technical changes and printing errors.