| | | |
|---|---|---|
| Firma und Anschrift | *KLINGER Kempchen - 46147 Oberhausen - Im Waldteich 21* | according to **DIN EN 13555** 2014-07 |
| Dichtungstyp | ***Kammprofildichtung B29A-Graphit (0,5 mm / D = 1,0 g/cm³)*** | |
| Dichtungsmaße $e_{GO}$ [mm] | ***Ø 53 / 73 x 92 x 4,85 mm (WN 101)*** | |
| Bemerkung: | *Die gemessenen Kennwerte gelten auch für die Profile B27A-Graphit und B25A-Graphit* | |

erforderliche Mindest-Flächenpressung **$Q_{min}$** (bei Montage), **$Q_{Smin}$** (nach Entlastung) für p = 10 bar bis 160 bar

| L [mg/(s*m)] | $Q_{MIN/L}$ [MPa] | | | | $Q_{SMIN/L}$ [MPa] | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $Q_A$ = 20 [MPa] | | | | $Q_A$ = 30 [MPa] | | | | $Q_A$ = 40 [MPa] | | | | $Q_A$ = 60 [MPa] | | | | $Q_A$ = 80 [MPa] | | | | $Q_A$ = 100 [MPa] | | | | $Q_A$ = 120 [MPa] | | | | $Q_A$ = 160 [MPa] | | | |
| | p=10 [bar] | p=40 [bar] | p=80 [bar] | p=160 [bar] | p=10 [bar] | p=40 [bar] | p=80 [bar] | p=160 [bar] | p=10 [bar] | p=40 [bar] | p=80 [bar] | p=160 [bar] | p=10 [bar] | p=40 [bar] | p=80 [bar] | p=160 [bar] | p=10 [bar] | p=40 [bar] | p=80 [bar] | p=160 [bar] | p=10 [bar] | p=40 [bar] | p=80 [bar] | p=160 [bar] | p=10 [bar] | p=40 [bar] | p=80 [bar] | p=160 [bar] | p=10 [bar] | p=40 [bar] | p=80 [bar] | p=160 [bar] | p=10 [bar] | p=40 [bar] | p=80 [bar] | p=160 [bar] |
| $10^{-0}$ | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | |
| $10^{-1}$ | *<5* | *15* | | | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | | *<5* | *<10* | | |
| $10^{-2}$ | *8* | *33* | | | *<5* | | | | *<5* | *26* | | | *<5* | *20* | | | *<5* | *19* | | | *<5* | *16* | | | *<5* | *16* | | | *<5* | *16* | | | *<5* | *12* | | |
| $10^{-3}$ | *28* | *68* | | | | | | | *29* | | | | *23* | *31* | | | *18* | *58* | | | *14* | *52* | | | *14* | *52* | | | *14* | *52* | | | *11* | *32* | | |
| $10^{-4}$ | *57* | *57* | | | | | | | | | | | | | | | *54* | | | | *45* | | | | *45* | | | | *45* | | | | *39* | *77* | | |
| $10^{-5}$ | *87* | *145* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | *84* | *139* | | |
| $10^{-6}$ | *128* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | *130* | | | |
| $10^{-7}$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $10^{-8}$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Relaxationsverhältnis **$P_{QR}$** bei einer Prüfstand-Steifigkeit von C = 500 kN/mm

| Flächenpressung | Raumtemperatur | | Temperatur 1 [100°C] | | Temperatur 2 [200°C] | | Temperatur 3 [300°C] | | Temperatur 4 [400°C] | | Temperatur 5 [500°C] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $P_{QR}$ | $\Delta e_{Gc}$ [mm] | $P_{QR}$ | $\Delta e_{Gc}$ [mm] | $P_{QR}$ | $\Delta e_{Gc}$ [mm] | $P_{QR}$ | $\Delta e_{Gc}$ [mm] | $P_{QR}$ | $\Delta e_{Gc}$ [mm] | $P_{QR}$ | $\Delta e_{Gc}$ [mm] |
| Flächenpressung 1 [ 50 MPa] | | | | | | | | | | | | |
| Flächenpressung 2 [ 90 MPa] | 1,00 | 0,001 | 0,99 | 0,005 | 0,99 | 0,005 | 0,97 | 0,010 | | | | |
| Flächenpressung 3 [ 120 MPa] | | | | | | | | | | | | |
| Flächenpressung 4 [ 180 MPa] | 0,99 | 0,006 | 0,98 | 0,011 | 0,99 | 0,006 | 0,99 | 0,006 | | | | |

maximale Flächenpressung ohne Beschädigung **$Q_{smax}$**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PQR bei $Q_{Smax.}$ | 1,00 | 0,001 | 0,98 | 0,020 | 0,98 | 0,024 | 0,98 | 0,026 | | | | |
| $Q_{smax}$ [MPa] | **480** | | **300** | | **300** | | **300** | | | | | |

Sekantenmodul der Dichtung bei Entlastung **$E_G$** und Dichtungshöhe **$e_G$**

| Flächenpressung [MPa] | Raumtemperatur | | Temperatur 1 [100°C] | | Temperatur 2 [200°C] | | Temperatur 3 [300°C] | | Temperatur 4 [400°C] | | Temperatur 5 [500°C] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $E_G$ [MPa] | $e_G$ [mm] | $E_G$ [MPa] | $e_G$ [mm] | $E_G$ [MPa] | $e_G$ [mm] | $E_G$ [MPa] | $e_G$ [mm] | $E_G$ [MPa] | $e_G$ [mm] | $E_G$ [MPa] | $e_G$ [mm] |
| 0 | | 4,8500 | | 4,7900 | | 4,8500 | | 4,8500 | | | | |
| 1 | | 4,8175 | | 4,5415 | | 4,5770 | | 4,5105 | | | | |
| 20 | 3244 | 4,1205 | 4078 | 3,9585 | 2761 | 4,0470 | 2986 | 3,8550 | | | | |
| 30 | 4775 | 4,0385 | 5357 | 3,9130 | 5358 | 3,9805 | 5521 | 3,8735 | | | | |
| 40 | 6024 | 4,0075 | 6893 | 3,8865 | 7057 | 3,9525 | 5901 | 3,8190 | | | | |
| 50 | 6630 | 3,9835 | 8315 | 3,8685 | 6351 | 3,9330 | 6770 | 3,8330 | | | | |
| 60 | 7250 | 3,9655 | 9693 | 3,8540 | 8715 | 3,9165 | 6387 | 3,7885 | | | | |
| 80 | 10067 | 3,9430 | 11827 | 3,8305 | 13110 | 3,8925 | 13400 | 3,8070 | | | | |
| 100 | 11379 | 3,9265 | 13871 | 3,8080 | 11335 | 3,8695 | 17868 | 3,7690 | | | | |
| 120 | 12565 | 3,9135 | 15078 | 3,7800 | 11176 | 3,8500 | 13889 | 3,7875 | | | | |
| 140 | 14950 | 3,9040 | 16900 | 3,7510 | 13727 | 3,8260 | 12016 | 3,7490 | | | | |
| 160 | 19506 | 3,8955 | 19157 | 3,7270 | 17238 | 3,8045 | 13243 | 3,7735 | | | | |
| 180 | 19066 | 3,8825 | 22099 | 3,7075 | 14200 | 3,7790 | 13487 | 3,7315 | | | | |
| 200 | 16015 | 3,8640 | 25229 | 3,6920 | 12466 | 3,7080 | 16002 | 3,7465 | | | | |
| 300 | 17428 | 3,7680 | 35572 | 3,6310 | 21487 | 3,6145 | 17450 | 3,6720 | | | | |
| 400 | 20010 | 3,6650 | | | | | | | | | | |
| 480 | 23162 | 3,5880 | | | | | | | | | | |

Hinweis: Der Inhalt von grau gefärbten Zellen wurde nicht ermittelt bzw. ist nicht nötig