| | | |
|---|---|---|
| Firma und Anschrift | *KLINGER Kempchen - 46147 Oberhausen - Im Waldteich 21* | according to **DIN EN 13555** 2014-07 |
| Dichtungstyp | ***Kammprofildichtung B29A-Graphit (1.4541 / 0,5 mm; D = 1,0 gcm³)*** | |
| Dichtungsmaße $e_{GO}$ [mm] | ***Ø 53 / 69 x 92 x 4,80 mm (DIN 1514-6)*** | |
| 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* | *<5* | *<20* | *<40* | *<5* | *<5* | | | *<5* | *<5* | | | *<5* | *<5* | *<10* | | *<5* | *<5* | *<10* | *<40* | *<5* | *<5* | *<10* | *<40* | *<5* | *<5* | *<10* | *<40* | *<5* | *<5* | *<10* | *<40* | *<5* | *<5* | *<10* | *<40* |
| $10^{-1}$ | *<5* | *15* | *<20* | *<40* | *<5* | *7* | | | *<5* | *<5* | | | *<5* | *<5* | *<10* | | *<5* | *<5* | *<10* | *<40* | *<5* | *<5* | *<10* | *<40* | *<5* | *<5* | *<10* | *<40* | *<5* | *<5* | *<10* | *<40* | *<5* | *<5* | *<10* | *<40* |
| $10^{-2}$ | *15* | *35* | *34* | *43* | *6* | | | | *<5* | | | | *<5* | *27* | *24* | | *<5* | *15* | *13* | *<40* | *<5* | *10* | *<10* | *<40* | *<5* | *9* | *<10* | *<40* | *<5* | *9* | *<10* | *<40* | *<5* | *6* | *<10* | *<40* |
| $10^{-3}$ | *30* | *62* | *55* | *67* | | | | | | | | | *23* | | | | *13* | | *49* | | *9* | *32* | *26* | *47* | *6* | *23* | *17* | *<40* | *6* | *23* | *17* | *<40* | *<5* | *14* | *<10* | *<40* |
| $10^{-4}$ | *56* | *83* | *79* | *85* | | | | | | | | | | | | | *53* | | | | *31* | | *77* | | *19* | *50* | *38* | *50* | *19* | *50* | *38* | *50* | *12* | *27* | *17* | *<40* |
| $10^{-5}$ | *85* | *105* | *101* | *105* | | | | | | | | | | | | | | | | | | | | | *58* | | | | *58* | | | | *28* | *62* | *34* | *<40* |
| $10^{-6}$ | *109* | *132* | *123* | *126* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | *68* | *118* | *86* | *65* |
| $10^{-7}$ | *135* | | *153* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | *128* | | *149* | |
| $10^{-8}$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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] | 0,98 | 0,003 | 0,88 | 0,018 | 0,85 | 0,023 | 0,98 | 0,004 | 0,51 | 0,076 | 0,60 | 0,062 |
| Flächenpressung 2 [ 90 MPa] | | | | | | | | | | | | |
| Flächenpressung 3 [ 120 MPa] | 0,99 | 0,005 | 0,85 | 0,059 | 0,80 | 0,075 | 0,85 | 0,055 | 0,86 | 0,054 | 0,86 | 0,049 |
| Flächenpressung 4 [ 180 MPa] | 0,87 | 0,072 | 0,90 | 0,056 | 0,87 | 0,072 | 0,87 | 0,072 | 0,94 | 0,036 | 0,84 | 0,091 |

maximale Flächenpressung ohne Beschädigung $Q_{smax}$

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PQR bei $Q_{Smax.}$ | 0,99 | 0,015 | 0,97 | 0,044 | 0,94 | 0,088 | 0,94 | 0,088 | 0,93 | 0,110 | 0,90 | 0,155 |
| $Q_{smax}$ [MPa] | **480** | | **480** | | **480** | | **480** | | **480** | | **480** | |

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 | | 4,8000 | | 4,9000 | | 4,8000 | | 4,8500 | | 4,9000 | | 4,9000 |
| 1 | | 4,7140 | | 4,4489 | | 4,6150 | | 4,7110 | | 4,4580 | | 4,6877 |
| 20 | 3891 | 4,1075 | 5507 | 4,0288 | 2193 | 4,0550 | 2175 | 4,0520 | 3901 | 3,9743 | 4016 | 3,9752 |
| 30 | 3230 | 4,0470 | 7193 | 4,0037 | 4100 | 4,0245 | 3711 | 4,0160 | 6758 | 3,9377 | 5377 | 3,9562 |
| 40 | 5119 | 4,0190 | 5842 | 3,9767 | 5491 | 3,9990 | 5754 | 3,9970 | 6390 | 3,9157 | 6762 | 3,9318 |
| 50 | 6558 | 4,0010 | 7983 | 3,9595 | 6150 | 3,9775 | 6497 | 3,9810 | 7647 | 3,9016 | 7579 | 3,9146 |
| 60 | 7575 | 3,8890 | 9490 | 3,9439 | 5728 | 3,9570 | 9068 | 3,9670 | 7045 | 3,8858 | 8353 | 3,9004 |
| 80 | 8639 | 3,9630 | 10753 | 3,9129 | 10512 | 3,9355 | 10687 | 3,9275 | 6885 | 3,8533 | 9805 | 3,8718 |
| 100 | 10892 | 3,9430 | 11595 | 3,8867 | 13100 | 3,9105 | 9957 | 3,8815 | 12645 | 3,8283 | 11414 | 3,8425 |
| 120 | 10958 | 3,9165 | 13484 | 3,8662 | 11029 | 3,8735 | 12061 | 3,8545 | 11353 | 3,7952 | 11153 | 3,8064 |
| 140 | 13913 | 3,8875 | 12748 | 3,8385 | 12119 | 3,8385 | 13223 | 3,8285 | 13251 | 3,7619 | 11731 | 3,7714 |
| 160 | 13773 | 3,8590 | 12801 | 3,8086 | 13538 | 3,8075 | 14400 | 3,8015 | 14077 | 3,7338 | 13525 | 3,7463 |
| 180 | 12919 | 3,8255 | 18491 | 3,7885 | 15268 | 3,7745 | 19335 | 3,7805 | 13554 | 3,7085 | 15028 | 3,7240 |
| 200 | 13604 | 3,7975 | 19971 | 3,7657 | 14791 | 3,7485 | 14938 | 3,7510 | 17704 | 3,6933 | 14024 | 3,7011 |
| 300 | 20710 | 3,7010 | 25845 | 3,6725 | 25326 | 3,6470 | 16109 | 3,6180 | 21100 | 3,5859 | 17068 | 3,5862 |
| 400 | 18965 | 3,5855 | 27676 | 3,5480 | 20681 | 3,4830 | 18878 | 3,4670 | 22064 | 3,4567 | 18145 | 3,4499 |
| 480 | 18733 | 3,4775 | 28366 | 3,4300 | 19537 | 3,3450 | 18779 | 3,3355 | 23463 | 3,3385 | 18425 | 3,3321 |

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