| | | |
|---|---|---|
| Firma und Anschrift | *KLINGER Kempchen - 46147 Oberhausen - Im Waldteich 21* | according to **DIN EN 13555** 2014-07 |
| Dichtungstyp | ***Profil PW5E (1.4571; C4400; TFM 1600; chem.-Well. 3 Tlg.)*** | |
| Dichtungsmaße $e_{GO}$ [mm] | ***Ø 49 / 92 x 6,30 mm (DIN 1514-3)*** | |
| Bemerkung: | *Bei höheren Innendrücken wurde eine höhere Anfangsflächenpressung gewählt!* | |

erforderliche Mindest-Flächenpressung $\mathbf{Q_{min}}$ (bei Montage), $\mathbf{Q_{Smin}}$ (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* | | | *<5* | *<5* | | | *<5* | *<5* | | | *<5* | *<5* | | | *<5* | *<5* | | | *<5* | *5* | | | *<5* | *<5* | | | | | | | | | | |
| $10^{-1}$ | *<5* | *6* | | | *<5* | *5* | | | *<5* | *<5* | | | *<5* | *<5* | | | *<5* | *<5* | | | *<5* | *<5* | | | *<5* | *<5* | | | | | | | | | | |
| $10^{-2}$ | *<5* | *8* | | | *<5* | *9* | | | *<5* | *7* | | | *<5* | *7* | | | *<5* | *7* | | | *<5* | *7* | | | *<5* | *7* | | | | | | | | | | |
| $10^{-3}$ | *<5* | *15* | | | *<5* | *15* | | | *<5* | *12* | | | *<5* | *11* | | | *<5* | *11* | | | *<5* | *11* | | | *<5* | *11* | | | | | | | | | | |
| $10^{-4}$ | *15* | *39* | | | *9* | | | | *6* | | | | *5* | *37* | | | *<5* | *19* | | | *<5* | *19* | | | *<5* | *16* | | | | | | | | | | |
| $10^{-5}$ | *34* | *80* | | | | | | | | | | | *20* | | | | *11* | | | | *10* | | | | *10* | *65* | | | | | | | | | | |
| $10^{-6}$ | *90* | | | | | | | | | | | | | | | | | | | | | | | | *88* | | | | | | | | | | | |
| $10^{-7}$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $10^{-8}$ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Relaxationsverhältnis $\mathbf{P_{QR}}$ 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] | 0,85 | 0,061 | 0,59 | 0,152 | 0,36 | 0,269 | | | | | | |
| Flächenpressung 2 [ 90 MPa] | | | | | | | | | | | | |
| Flächenpressung 3 [ 120 MPa] | | | | | | | | | | | | |
| Flächenpressung 4 [ 180 MPa] | | | | | | | | | | | | |

maximale Flächenpressung ohne Beschädigung $\mathbf{Q_{smax}}$

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PQR bei $Q_{Smax}$. | 0,89 | 0,090 | 0,56 | 0,298 | 0,35 | 0,329 | | | | | | |
| $Q_{smax}$ [MPa] | **100** | | **80** | | **60** | | | | | | | |

Sekantenmodul der Dichtung bei Entlastung $\mathbf{E_G}$ und Dichtungshöhe $\mathbf{e_G}$

| 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 | | 6,3000 | | 6,3000 | | 6,3000 | | | | | | |
| 1 | | 6,4300 | | 6,0680 | | 6,0670 | | | | | | |
| 20 | 938 | 5,5742 | 1196 | 5,5330 | 1384 | 5,3460 | | | | | | |
| 30 | 1296 | 5,2788 | 1608 | 5,3240 | 1520 | 5,0335 | | | | | | |
| 40 | 1685 | 5,0334 | 2150 | 5,0740 | 1915 | 4,6550 | | | | | | |
| 50 | 2124 | 4,8346 | 2852 | 4,8325 | 2481 | 4,2755 | | | | | | |
| 60 | 2597 | 4,6712 | 3611 | 4,6215 | 3127 | 4,0845 | | | | | | |
| 80 | 3615 | 4,4285 | 5121 | 4,2520 | | | | | | | | |
| 100 | 4528 | 4,2481 | | | | | | | | | | |

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