| Comparative Values of "Kovar Sealing" Glasses |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Glass Code | 7052 | 7056 | 8830 | EN1 | 8245 | 8250 |
| Source | Corning | Corning | Corning | Kimble | Schott | Schott |
| Expansion $10^{-7} /{ }^{\circ} \mathrm{C}$ | 47 | 51.5 | 49.5 | 47 | 51 | 50 |
| Strain Pt ${ }^{\circ} \mathrm{C}$ | 440 | 472 | 460 | 437 | 505 | 490 |
| Annealing $\mathrm{Pt}{ }^{\circ} \mathrm{C}$ | 484 | 512 | 501 | 482 | 515 | 500 |
| Softening $\mathrm{Pt}{ }^{\circ} \mathrm{C}$ | 712 | 718 | 708 | 716 | 720 | 720 |
| Working Pt ${ }^{\circ} \mathrm{C}$ | 1128 | 1058 | 1042 | 1120 | 1040 | 1055 |
| Density gms / cm ${ }^{3}$ | 2.27 | 2.29 | 2.24 | 2.27 | 2.31 | 2.28 |
| Vol. Rest Log 10 |  |  |  |  |  |  |
| @ $250^{\circ} \mathrm{C} \Omega / \mathrm{cm}$ | 9.2 | 10.3 | 7.8 | 8.9 | 7.4 | 10 |
| @ $350{ }^{\circ} \mathrm{C} \Omega / \mathrm{cm}$ | 7.4 | 8.4 | 6.3 | 7.2 | 5.9 | 8.3 |
| Dielectric 1M H3 @ $20^{\circ} \mathrm{C}$ |  |  |  |  |  |  |
| K | 5.1 | 5.7 | N/A |  |  |  |
| Loss Factor \% | 0.15 | 0.27 | N/A |  |  |  |
| Refractive Index | 1.484 | 1.486 | N/A |  |  |  |
| Dielectric $1 \mathrm{M} \mathrm{H} \mathrm{H}^{\text {@ }} 25^{\circ} \mathrm{C}$ |  |  |  |  |  |  |
| K |  |  |  | 5.0 | 5.7 | 4.9 |
| Loss Factor \% |  |  |  | 1.4 | -- | -- |
| Refractive Index |  |  |  | 1.48 | 1.488 | 1.487 |
| Stress Optical |  |  |  |  |  |  |
| $10^{-6} \mathrm{~mm}^{2} / \mathrm{N}$ | 3.6 | 3.7 | 3.9 | 4.1 | 3.8 | 3.6 |
| Melt Availability | N/A | N/A | N/A | N/A | 2-3 Years | Annually |

This table should only be used for reference purposes. Data for design and applications should be taken from the respective company's published data.

[^0]
[^0]:    January 2013, Revision 1

