

Vesconite - Typical Properties

|                                                                                                                                     |                              | METRIC                      | IMPERIAL                        |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|---------------------------------|
| Density (Specific Gravity)                                                                                                          |                              | 1.38                        |                                 |
| Melting point                                                                                                                       |                              | 260°C                       | 500°F                           |
| Hardness - Shore D (ASTM D2240 / ISO 868)                                                                                           |                              | 83                          |                                 |
| Compressive Properties<br>(ASTM D695 / ISO 604)                                                                                     | Compressive Strength @ Yield | 93 MPa                      | 13,489 psi                      |
|                                                                                                                                     | Modulus of Elasticity        | 2.3 GPa                     | 333,590 psi                     |
| Tensile Properties<br>(ASTM D638 / ISO 527)                                                                                         | Tensile Strength @ Yield     | 66 MPa                      | 9,573 psi                       |
|                                                                                                                                     | Tensile Strength @ Break     | 63 MPa                      | 9,137 psi                       |
| Tangent modulus of elasticity (ASTM D790)                                                                                           |                              | 3,726 MPa                   | 540,410 psi                     |
| Water swell - Mass change<br>(ASTM D570 / ISO 62)                                                                                   | After 24 hours               | 0.11%                       |                                 |
|                                                                                                                                     | After 28 days                | 0.12%                       |                                 |
| Oil swell - Mass change<br>(ASTM D570 / ISO 62)                                                                                     | After 24 hours               | 0.08%                       |                                 |
|                                                                                                                                     | After 28 days                | 0.09%                       |                                 |
| Shear strength (ASTM D732)                                                                                                          |                              | 49.1MPa                     | 7,121 psi                       |
| Flexural yield strength                                                                                                             |                              | 120 MPa                     | 17,400 psi                      |
| Deflection temperature at 1.85MPa / 268 psi                                                                                         |                              | 93°C                        | 200°F                           |
| Notched impact strength - Charpy (ASTM D6110 / ISO 179)                                                                             |                              | 245 kJ/m <sup>2</sup>       | 117 ft-lb/in <sup>2</sup>       |
| Notched impact strength IZOD                                                                                                        |                              | 30 J/m                      | 0.56 ft-lb/in                   |
| Heat conductivity                                                                                                                   |                              | 0.3 w/m.K                   | 2 Btu-in/ft <sup>2</sup> .hr.°F |
| Coefficient of linear thermal expansion                                                                                             |                              | 6x10 <sup>-5</sup> mm/mm.°C | 3.3x10 <sup>-5</sup> in/in.°F   |
| Dynamic friction coefficient on polished steel (no lubrication)                                                                     |                              | 0.13 - 0.18                 |                                 |
| Dielectric strength                                                                                                                 |                              | 14 kV/mm                    | 360 kV/in                       |
| Gamma ray resistance 50% loss of properties                                                                                         |                              | 100 Mrads                   |                                 |
| The above data should be taken for indicative purposes. Physical properties may be altered to some extent by processing conditions. |                              |                             |                                 |