

PFA Technical Properties



| | Properties | DIN or ASTM Standard | Unit | PFA |
|--|--|----------------------|-------------------|-----------|
| Physical | Specific Gravity | 53479 | g/cc | 2.12-2.17 |
| | Maximum Working Temperature | | °C | 260 |
| | Flame Rating | | UL-94 | 94 V-0 |
| | Water Absorption | 53495 | % | V0.03 |
| Mechanical | Ultimate tensile strength at 23°C | 53455 | | 27-32 |
| | Ultimate tensile strength at 150°C | | Mpa | 15-21 |
| | Ultimate tensile strength at 250°C | | | 14-15 |
| | Yield point as 23°C | 53455 | N/mm ² | 14 |
| | Elongation at break , at 23°C | 53455 | % | 300 |
| | Modulus of elasticity in tension at 23°C | 53457 | N/mm ² | 650 |
| | Maximum bending stress at 23° | 53452 | Mpa | 15 |
| | Flexural Modulus | 53457 | N/mm ² | 650-700 |
| | Ball Hardness 132-60 | 53456 | N/mm ² | 25-30 |
| | Rockwell Hardness R | ASTM-D-785 | | |
| | Shore Hardness D | 53505 | | 60-65 |
| | Coefficient of friction (dry with steel) | | | 0.20-0.30 |
| | Thermal | Melting temperature | ASTM 2116 | °C |
| Heat deflection temperature @ 18.5 Kp/ sq.cm | | 53461 | °C | |
| Heat deflection temperature @ 4.6 Kp/ sq.cm | | ISO R 75 | °C | |
| Coefficient of expansion | | | 1/K.10-5 | 10-16 |
| Thermal conductivity at 23°C | | 52612 | W/K.m | 0.22 |
| Specific heat at 23°C | | | Kj/Kg.K | 1.09 |
| Oxygen index | | | % | >95 |
| Electrical | Relative permittivity at 10 (3) Hz | 53483 | | 2.06-2.1 |
| | Relative permittivity at 10 (6) Hz | | | 2.06-2.1 |
| | Surface resistivity | ICE 93+167 | Ohms | 10 (17) |
| | Arc resistance | ASTM 495 | sec | >210 |
| | Dielectric strength | 53481 | KV/mm | 50-80 |

IMPORTANT NOTE: The above data is intended as a guide and is taken from resin manufacturers data. Customers must evaluate the material under the relevant conditions if the properties are critical to their applications.