



Resinoid Engineering Corporation

Compound
Number
2002-4A

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Resinoid 2002-4A is a fabric reinforced, two-step phenolic molding compound. It has been modified to meet gear requirements and other stressed applications. It possesses excellent impact and flexural strength. It is available in bulk form and is recommended for compression or transfer molding.

| <u>MATERIAL PROPERTIES</u> | ASTM | ISO | US UNIT | SI UNIT |
|---|-------|--------|-------------------------------|----------------------------------|
| FORM | | | CHOPPED FABRIC | CHOPPED FABRIC |
| BULK FACTOR | D1895 | 171 | 10-12 | 10-12 |
| SHRINKAGE-MOLDED (POSITIVE MOLD) | D955 | 2577 | 0.002-0.004 in/in | 0.2%-0.4% |
| MOLDING PRESSURE –COMPRESSION | | | 2,000-4,000 psi | 14-28 MPa |
| MOLDING TEMPERATURE | D957 | | 300-350°F | 150-175°C |
| COLOR | | | BLACK | BLACK |
| <u>MECHANICAL AND PHYSICAL PROPERTIES</u> | | | | |
| SPECIFIC GRAVITY | D792A | 1183 | 1.40 | 1.40 ₂₃ ²³ |
| WATER ABSORPTION (24 HR. R.T.) | D570 | 62-1 | 0.6% | 0.6% |
| TENSILE STRENGTH | D651 | R527-3 | 8,000 psi | 55 MPa |
| FLEXURAL STRENGTH | D790 | 178 | 14,000 psi | 97 MPa |
| MODULUS IN FLEX | D790 | 178 | 1.6x10 ⁶ psi | 1.1x10 ⁴ MPa |
| IMPACT (IZOD, NOTCHED) | D256A | 180/2A | 2.1 ft-lb/in | 11.03 kJ/m ² |
| COMPRESSIVE STRENGTH | D695 | 604 | 21,700 psi | 150 MPa |
| <u>ELECTRICAL PROPERTIES</u> | | | | |
| DIELECTRIC STRENGTH (S.T.) DRY | D149 | IEC243 | 325 V/mil | 12.8 kV/mm |
| <u>THERMAL PROPERTIES</u> | | | | |
| DEFLECTION TEMPERATURE | D648 | 75A | 350°F | 177°C |
| COEFFICIENT OF LINER THERMAL EXPANSION | D696 | | 1.0x10 ⁻⁵ in/in/°F | 1.8x10 ⁻⁵ mm/mm/°C |

The above values are typical of standard procedures such as ASTM. No assurance is given that the above data will be duplicated. Results can be affected by many variables including part design, storage and mold design. NO GUARANTEE, WARRANTY or REPRESENTATION, express or implied, is made for the performance or stability of Resinoid molding materials. Each user must conduct their own tests to determine the suitability of Resinoid molding materials for their particular application.