

# SumiDurez 152

Phenolic

SumiDurez Singapore Pte Ltd

## Message:

152 Phenolic is a two-stage, asbestos-free heat resistant / electrical molding material. It exhibits superior dimensional stability, good strength retention at elevated temperature, and good molded appearance and machinability which account for its widespread use on electrical, telecommunication, and appliance applications. The electrical properties for injection-molded applications are greatly improved relative to asbestos-bearing materials. 152 Phenolic is designed to meet the requirements of Mil-M-14G, Type CFG.

ASTM Type 13

| General Information |                                    |
|---------------------|------------------------------------|
| UL YellowCard       | E110527-100676189                  |
| Features            | Good Dimensional Stability         |
|                     | Good Electrical Properties         |
|                     | Good Strength                      |
|                     | High Heat Resistance               |
|                     | High Temperature Strength          |
|                     | Machinable                         |
|                     | Pleasing Surface Appearance        |
| Uses                | Appliances                         |
|                     | Electrical/Electronic Applications |
|                     | Telecommunications                 |
| Agency Ratings      | MIL M-14G, Type CFG                |
| Appearance          | Black                              |
|                     | Brown                              |
| Forms               | Granules                           |
| Processing Method   | Compression Molding                |
|                     | Injection Molding                  |
|                     | Resin Transfer Molding             |

| Physical                                      | Nominal Value | Unit              | Test Method |
|---|---------------|-------------------|-------------|
| Specific Gravity                              | 1.50          | g/cm <sup>3</sup> | ASTM D792   |
| Apparent Density                              | 0.65          | g/cm <sup>3</sup> | ASTM D1895  |
| Bulk Factor                                   | 2.3           |                   | ASTM D1895  |
| Molding Shrinkage - Flow (Compression Molded) | 0.60 to 1.0   | %                 | ASTM D955   |
| Water Absorption (24 hr)                      | 0.30          | %                 | ASTM D570   |
| Mechanical                                    | Nominal Value | Unit              | Test Method |
| Tensile Modulus (Compression Molded)          | 9650          | MPa               | ASTM D638   |

|   |               |         |             |
|---|---------------|---------|-------------|
| Tensile Strength (Yield, Compression Molded)                                | 55.2          | MPa     | ASTM D638   |
| Flexural Strength (Compression Molded)                                      | 75.8          | MPa     | ASTM D790   |
| Compressive Strength  | 207           | MPa     | ASTM D695   |
| Impact  | Nominal Value | Unit    | Test Method |
| Notched Izod Impact (Compression Molded)                                    | 16            | J/m     | ASTM D256   |
| Thermal   | Nominal Value | Unit    | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed, Compression Molded) | 191           | °C      | ASTM D648   |
| Electrical  | Nominal Value | Unit    | Test Method |
| Volume Resistivity  | 1.0E+12       | ohms·cm | ASTM D257   |
| Dielectric Strength   | 15            | kV/mm   | ASTM D149   |
| Comparative Tracking Index (CTI)  | 190           | V       | UL 746      |
| Flammability  | Nominal Value | Unit    | Test Method |
| Flame Rating  |               |         | UL 94       |
| 1.47 mm   | V-1           |         |             |
| 3.05 mm   | V-0           |         |             |

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