

# PermaStat® 1800 EG

Polymethyl Methacrylate Acrylic

RTP Company

## Message:

Permanently Anti-static - ESD Protection

| General Information                                                           |                                    |                   |                  |
|-------------------------------------------------------------------------------|------------------------------------|-------------------|------------------|
| Features                                                                      | Electrostatic discharge protection |                   |                  |
|                                                                               | Antistatic property                |                   |                  |
| RoHS Compliance                                                               | Contact manufacturer               |                   |                  |
| Processing Method                                                             | Injection molding                  |                   |                  |
| Physical                                                                      | Nominal Value                      | Unit              | Test Method      |
| Specific Gravity                                                              | 1.15                               | g/cm <sup>3</sup> | ASTM D792        |
| Molding Shrinkage - Flow (3.20 mm)                                            | 0.50 - 0.70                        | %                 | ASTM D955        |
| Moisture Content                                                              | 0.020                              | %                 |                  |
| Static Decay                                                                  |                                    | sec               | FTMS 101C 4046.1 |
| Mechanical                                                                    | Nominal Value                      | Unit              | Test Method      |
| Tensile Modulus                                                               | 1380                               | MPa               | ASTM D638        |
| Tensile Strength                                                              | 37.9                               | MPa               | ASTM D638        |
| Tensile Elongation (Yield)                                                    | > 10                               | %                 | ASTM D638        |
| Flexural Modulus                                                              | 1720                               | MPa               | ASTM D790        |
| Flexural Strength                                                             | 58.6                               | MPa               | ASTM D790        |
| Impact                                                                        | Nominal Value                      | Unit              | Test Method      |
| Notched Izod Impact (3.20 mm)                                                 | 53                                 | J/m               | ASTM D256        |
| Unnotched Izod Impact (3.20 mm)                                               | 800                                | J/m               | ASTM D4812       |
| Electrical                                                                    | Nominal Value                      | Unit              | Test Method      |
| Surface Resistivity                                                           |                                    |                   |                  |
| --                                                                            | 1.0E+10 - 9.9E+11                  | ohms              | ASTM D257        |
| --                                                                            | 1.0E+9 - 9.9E+10                   | ohms              | ESD STM11.11     |
| Volume Resistivity                                                            | 1.0E+9 - 9.9E+10                   | ohms · cm         | ASTM D257        |
| Injection                                                                     | Nominal Value                      | Unit              |                  |
| Drying Temperature                                                            | 93.3                               | °C                |                  |
| Drying Time                                                                   | 4.0                                | hr                |                  |
| Dew Point                                                                     | -17.8                              | °C                |                  |
| Processing (Melt) Temp                                                        | 213 - 243                          | °C                |                  |
| Mold Temperature                                                              | 37.8 - 65.6                        | °C                |                  |
| Injection Pressure                                                            | 68.9 - 103                         | MPa               |                  |
| Injection instructions                                                        |                                    |                   |                  |
| Do not exceed 520 °F (270 °C) melt temperature.Desiccant Type Dryer Required. |                                    |                   |                  |

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