

## Iuplace™ AH80

Mitsubishi Engineering-Plastics Corp - Polyphenylene Ether + PS

| General Information                         |                                                                                                           |                                                                                                               |                 |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Product Description</b>                  |                                                                                                           |                                                                                                               |                 |
| HB                                          |                                                                                                           |                                                                                                               |                 |
| <b>General</b>                              |                                                                                                           |                                                                                                               |                 |
| Uses                                        | <ul style="list-style-type: none"> <li>Automotive Applications</li> <li>Automotive Electronics</li> </ul> | <ul style="list-style-type: none"> <li>Electrical/Electronic Applications</li> <li>General Purpose</li> </ul> |                 |
| ASTM & ISO Properties <sup>1</sup>          |                                                                                                           |                                                                                                               |                 |
| Physical                                    | Nominal Value                                                                                             | Unit                                                                                                          | Test Method     |
| Density                                     | 1.07                                                                                                      | g/cm <sup>3</sup>                                                                                             | ISO 1183        |
| Melt Volume-Flow Rate (MVR) (300°C/2.16 kg) | 4.0                                                                                                       | cm <sup>3</sup> /10min                                                                                        | ISO 1133        |
| Molding Shrinkage                           |                                                                                                           |                                                                                                               | Internal Method |
| Across Flow : 3.20 mm                       | 0.50 to 0.70                                                                                              | %                                                                                                             |                 |
| Flow : 3.20 mm                              | 0.50 to 0.70                                                                                              | %                                                                                                             |                 |
| Water Absorption (Saturation, 23°C)         | 0.070                                                                                                     | %                                                                                                             | ISO 62          |
| Mechanical                                  | Nominal Value                                                                                             | Unit                                                                                                          | Test Method     |
| Tensile Modulus                             | 2600                                                                                                      | MPa                                                                                                           | ISO 527-1/1     |
| Tensile Stress (Yield)                      | 63.0                                                                                                      | MPa                                                                                                           | ISO 527-2/50    |
| Tensile Strain                              |                                                                                                           |                                                                                                               | ISO 527-2/50    |
| Yield                                       | 5.5                                                                                                       | %                                                                                                             |                 |
| Break                                       | 25                                                                                                        | %                                                                                                             |                 |
| Flexural Modulus <sup>2</sup>               | 2600                                                                                                      | MPa                                                                                                           | ISO 178         |
| Flexural Stress <sup>2</sup>                | 110                                                                                                       | MPa                                                                                                           | ISO 178         |
| Impact                                      | Nominal Value                                                                                             | Unit                                                                                                          | Test Method     |
| Charpy Notched Impact Strength (23°C)       | 18                                                                                                        | kJ/m <sup>2</sup>                                                                                             | ISO 179         |
| Charpy Unnotched Impact Strength (23°C)     | 150                                                                                                       | kJ/m <sup>2</sup>                                                                                             | ISO 179         |
| Thermal                                     | Nominal Value                                                                                             | Unit                                                                                                          | Test Method     |
| Deflection Temperature Under Load           |                                                                                                           |                                                                                                               |                 |
| 0.45 MPa, Unannealed                        | 150                                                                                                       | °C                                                                                                            | ISO 75-2/B      |
| 1.8 MPa, Unannealed                         | 135                                                                                                       | °C                                                                                                            | ISO 75-2/A      |
| CLTE                                        |                                                                                                           |                                                                                                               | ISO 11359-2     |
| Flow                                        | 6.6E-5                                                                                                    | cm/cm/°C                                                                                                      |                 |
| Transverse                                  | 6.9E-5                                                                                                    | cm/cm/°C                                                                                                      |                 |
| Electrical                                  | Nominal Value                                                                                             | Unit                                                                                                          | Test Method     |
| Surface Resistivity                         | 2.0E+15                                                                                                   | ohms                                                                                                          | IEC 60093       |
| Volume Resistivity                          | 3.0E+16                                                                                                   | ohms·cm                                                                                                       | IEC 60093       |
| Flammability                                | Nominal Value                                                                                             | Unit                                                                                                          | Test Method     |
| Flame Rating (0.75 mm)                      | HB                                                                                                        |                                                                                                               | UL 94           |



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## Processing Information

| Injection                          | Nominal Value | Unit |
|------------------------------------|---------------|------|
| Drying Temperature - Hot Air Dryer | 100 to 120    | °C   |
| Drying Time - Hot Air Dryer        | 2.0 to 4.0    | hr   |
| Rear Temperature                   | 250 to 280    | °C   |
| Middle Temperature                 | 270 to 300    | °C   |
| Front Temperature                  | 270 to 300    | °C   |
| Nozzle Temperature                 | 270 to 300    | °C   |
| Mold Temperature                   | 80 to 110     | °C   |
| Injection Pressure                 | 20.0 to 150   | MPa  |
| Injection Rate                     | Moderate      |      |
| Screw Speed                        | 60 to 150     | rpm  |

