

**PRODUCT INFORMATION****Toughened Grade****KOCETAL<sup>®</sup> EL302BK**

Kocetal EL302BK is impact strength modified grade suitable for fastener and switch.

| Property                                                 | Test Method | Units                      | Value          |
|----------------------------------------------------------|-------------|----------------------------|----------------|
| <b>Physical</b>                                          |             |                            |                |
| Melt Index                                               | ASTM D1238  | g/10min                    | 10.0           |
| Specific Gravity                                         | ASTM D792   | -                          | 1.38           |
| Shrinkage                                                | ASTM D955   | %                          | 1.8            |
| Water Absorption 23℃, Equilibrium 60%RH                  | ASTM D570   | %                          | 0.24           |
| <b>Thermal</b>                                           |             |                            |                |
| Melting Point                                            | ASTM D1525  | ℃                          | 166            |
| Heat Deflection Temperature under Load                   | ASTM D648   |                            |                |
| HDT/A 0.45 MPa ( 4.6 kg/cm <sup>2</sup> )                |             | ℃                          | 152            |
| HDT/A 1.82 MPa ( 18.6 kg/cm <sup>2</sup> )               |             | ℃                          | 92             |
| Vicat Softening Temperature                              | ASTM D1525  | ℃                          |                |
| Coeff. Of Linear Thermal Expansion                       | ASTM D696   | × 10 <sup>-5</sup> cm/cm·℃ | 13             |
| Flammability                                             | UL 94       |                            | HB             |
| <b>Mechanical</b>                                        |             |                            |                |
| Tensile Strength 23℃                                     | ASTM D638   | MPa (kg/cm <sup>2</sup> )  | 50 (510)       |
| Tensile Elongation 23℃                                   | ASTM D638   | %                          | 70             |
| Flexural Strength 23℃                                    | ASTM D790   | MPa (kg/cm <sup>2</sup> )  | 71 (725)       |
| Flexural Modulus 23℃                                     | ASTM D790   | MPa (kg/cm <sup>2</sup> )  | 2,000 (20,500) |
| Notched Izod Impact Strength 23℃                         | ASTM D256   | J/m (kg cm/cm)             | 85 (8.7)       |
| Rockwell Hardness M scale                                | ASTM D785   | -                          | 78             |
| <b>Electrical</b>                                        |             |                            |                |
| Surface Resistivity                                      | ASTM D257   | × 10 <sup>16</sup> Ω       | 1              |
| Volume Resistivity                                       | ASTM D257   | × 10 <sup>14</sup> Ω cm    | 1              |
| Dielectric Strength                                      | ASTM D149   | kV/mm                      | 19             |
| Dielectric Constant                                      | ASTM D150   | -                          | 3.7            |
| Dielectric Dissipation FactorConstant 10 <sup>6</sup> Hz | ASTM D150   | -                          | 0.006          |

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