

## Kolon DIAMATÂ® EG

Category : Polymer , Thermoplastic , Acrylic (PMMA) , Acrylic, Extruded

### Material Notes:

Description: DIAMATÂ® is a specially formulated high impact grade PMMA resin from KOLON. The acrylic composition results in an excellent balance of impact resistance and high modulus at reasonable pricing. DIAMATÂ® utilizes acrylic toughener technology resulting in consistent appearance, even after years of UV exposure. DIAMATÂ® EG is an acrylic molding resin for extrusion molding with balanced impact strength and heat resistance. Information provided by US distributor, API-Kolon.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Kolon-DIAMAT-EG.php](http://www.lookpolymers.com/polymer_Kolon-DIAMAT-EG.php)

| Physical Properties   | Metric                | English               | Comments   |
|-----------------------|-----------------------|-----------------------|------------|
| Specific Gravity      | 1.16 g/cc             | 1.16 g/cc             | ASTM D792  |
| Water Absorption      | 0.40 %                | 0.40 %                | ASTM D570  |
| Linear Mold Shrinkage | 0.0030 - 0.0080 cm/cm | 0.0030 - 0.0080 in/in | ASTM D955  |
| Melt Flow             | 2.2 g/10 min          | 2.2 g/10 min          | ASTM D1238 |

| Mechanical Properties      | Metric     | English        | Comments  |
|----------------------------|------------|----------------|-----------|
| Hardness, Rockwell M       | 55         | 55             | ASTM D785 |
| Tensile Strength, Ultimate | 44.1 MPa   | 6400 psi       | ASTM D638 |
| Flexural Strength          | 78.6 MPa   | 11400 psi      | ASTM D790 |
| Flexural Modulus           | 2.26 GPa   | 327 ksi        | ASTM D790 |
| Izod Impact, Notched       | 0.441 J/cm | 0.827 ft-lb/in | ASTM D256 |
| Falling Dart Impact        | 13.3 J     | 9.80 ft-lb     |           |

| Thermal Properties                          | Metric   | English | Comments                      |
|---------------------------------------------|----------|---------|-------------------------------|
| Deflection Temperature at 0.46 MPa (66 psi) | 94.0 Â°C | 201 Â°F | Load not specified; ASTM D648 |
| Vicat Softening Point                       | 98.0 Â°C | 208 Â°F | ASTM D1525                    |
| Glass Transition Temp, Tg                   | 107 Â°C  | 225 Â°F | ASTM D3418                    |

| Optical Properties | Metric   | English  | Comments   |
|--------------------|----------|----------|------------|
| Refractive Index   | 1.49     | 1.49     | ASTM D542  |
| Haze               | <= 2.0 % | <= 2.0 % | ASTM D1003 |

| Transmission Visible<br>Optical Properties | 91 %<br>Metric    | 91 %<br>English   | ASTM D1003<br>Comments    |
|--------------------------------------------|-------------------|-------------------|---------------------------|
| Processing Properties                      | Metric            | English           | Comments                  |
| Rear Barrel Temperature                    | 150 - 180 Â°C     | 302 - 356 Â°F     | Injection                 |
| Middle Barrel Temperature                  | 180 - 230 Â°C     | 356 - 446 Â°F     | Injection                 |
| Front Barrel Temperature                   | 210 - 240 Â°C     | 410 - 464 Â°F     | Injection                 |
| Nozzle Temperature                         | 220 - 245 Â°C     | 428 - 473 Â°F     | Injection                 |
| Zone 1                                     | 200 - 220 Â°C     | 392 - 428 Â°F     | Extrusion                 |
| Zone 2                                     | 210 - 230 Â°C     | 410 - 446 Â°F     | Extrusion                 |
| Zone 3                                     | 220 - 240 Â°C     | 428 - 464 Â°F     | Extrusion                 |
| Zone 4                                     | 210 - 235 Â°C     | 410 - 455 Â°F     | Vent; Extrusion           |
| Zone 5                                     | 225 - 240 Â°C     | 437 - 464 Â°F     | Extrusion                 |
| Adapter Temperature                        | 230 - 240 Â°C     | 446 - 464 Â°F     | Extrusion                 |
| Die Temperature                            | 220 - 240 Â°C     | 428 - 464 Â°F     | Extrusion                 |
| Melt Temperature                           | 220 - 235 Â°C     | 428 - 455 Â°F     | Recommended for Injection |
| Mold Temperature                           | 40.0 - 80.0 Â°C   | 104 - 176 Â°F     |                           |
| Roll Temperature                           | 80.0 - 100 Â°C    | 176 - 212 Â°F     | Extrusion                 |
| Drying Temperature                         | 70.0 - 80.0 Â°C   | 158 - 176 Â°F     |                           |
| Dry Time                                   | 3 - 5 hour        | 3 - 5 hour        |                           |
| Injection Pressure                         | 78.45 - 137.3 MPa | 11380 - 19910 psi |                           |
| Screw Speed                                | 40 - 80 rpm       | 40 - 80 rpm       | Extrusion                 |

## Contact Songhan Plastic Technology Co.,Ltd.

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