

PRODUCT INFORMATION

Metric & SI unit

Acetal Copolymer
KEPITAL®

KOREA ENGINEERING PLASTICS CO.,LTD.

FM2020

A medium viscosity grade for general injection molding. It was modified with MoS₂, and so suitable for parts requiring a good friction & wear resistance and also high stiffness.

| Property | Test Method | Units | Value |
|--|-------------|--|----------------------|
| Physical | | | |
| Specific Gravity | ASTM D792 | — | 1.43 |
| Water Absorption 23 °C, 60%RH | ASTM D570 | % | 0.22 |
| Thermal | | | |
| Melt Index 190 °C, 2.16 kg | ASTM D1238 | g/10min | 10 |
| Melting Point 10 °C/min | ASTM D3418 | °C | 165 |
| Heat Deflection Temperature 4.6kg _f /cm ² (0.5MPa) | ASTM D648 | °C | 124 |
| 18.6kg _f /cm ² (1.8MPa) | | | 13 |
| Coeff. of Linear Thermal Expansion 20 ~ 80 °C | ASTM D696 | x 10 ⁻⁵ cm/cm/°C | 13 |
| Flammability t 0.8mm | UL94 | — | HB |
| Mechanical | | | |
| Tensile Strength 23 °C | ASTM D638 | kg _f /cm ² (MPa) | 635 (62) |
| Tensile Elongation 23 °C | ASTM D638 | % | 50 |
| Flexural Strength 23 °C | ASTM D790 | kg _f /cm ² (MPa) | 920 (90) |
| Flexural Modulus 23 °C | ASTM D790 | x 10 ⁴ kg _f /cm ² (MPa) | 2.70 (2,600) |
| Shear Strength t 2mm | ASTM D732 | kg _f /cm ² (MPa) | |
| Notched Izod Impact Strength t 3.2mm | ASTM D256 | kg _f · cm/cm (J/m) | 6.8 (67) |
| Rockwell Hardness M scale | ASTM D785 | — | M80 |
| Electrical | | | |
| Dielectric Constant 10 ⁶ Hz | ASTM D150 | — | |
| Dielectric Dissipation Factor 10 ⁶ Hz | ASTM D150 | — | |
| Surface Resistivity | ASTM D257 | Ω | 1 x 10 ¹⁶ |
| Volume Resistivity | ASTM D257 | Ω · cm | 1 x 10 ¹⁴ |
| Dielectric Strength | ASTM D149 | kV/mm | |
| Molding Shrinkage (//Direction) t 3mm, Φ 100mm | | % | 2.0 |

Properties are subject to change with a new knowledge and development.

Although the information and recommendations set forth herein are presented in good faith and believed to be correct, we recommend that persons receiving information must make their own determination as to its suitability to their purposes prior to use. These are based on natural colored products only through relevant test methods and conditions. The KOREA ENGINEERING PLASTICS CO., LTD. assumes no warranty or liability of, express or implied, as to the accuracy or completeness thereof, or any other nature regarding designs, products, or information may be used without infringing the intellectual property rights of others. Further, the data furnished by KEP are not intent to replace any testing required to determine a suitability of any application and set a specification limit for design.

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A medium viscosity grade for general injection molding. It was modified with MoS₂, and so suitable for parts requiring a good friction & wear resistance and also high stiffness.

| Property | Test Method | Units | Value |
|---|-------------|--|----------------------|
| Physical | | | |
| Specific Gravity | ASTM D792 | — | 1.43 |
| Water Absorption 23 °C (73°F), 60% RH | ASTM D570 | % | 0.22 |
| Thermal | | | |
| Melt Index 190 °C, 2.16 kg | ASTM D1238 | g/10min | 10 |
| Melting Point 10 °C/min | ASTM D3418 | °C (°F) | 165 (329) |
| Heat Deflection Temperature 4.6kg _f /cm ² (64psi) | ASTM D648 | °C (°F) | 124 (255) |
| 18.6kg _f /cm ² (264psi) | | | |
| Coeff. of Linear Thermal Expansion 20 ~ 80 °C | ASTM D696 | x 10 ⁻⁵ cm/cm/°C | 13 |
| Flammability t 0.8mm(t 0.03in) | UL94 | — | HB |
| Mechanical | | | |
| Tensile Strength 23 °C (73°F) | ASTM D638 | kg _f /cm ² (psi) | 635 (9,000) |
| Tensile Elongation 23 °C (73°F) | ASTM D638 | % | 50 |
| Flexural Strength 23 °C (73°F) | ASTM D790 | kg _f /cm ² (x 10 ³ psi) | 920 (13.1) |
| Flexural Modulus 23 °C (73°F) | ASTM D790 | x 10 ⁴ kg _f /cm ² (x 10 ⁴ psi) | 2.70 (38.4) |
| Shear Strength t 2mm (t 0.08in) | ASTM D732 | kg _f /cm ² (psi) | |
| Notched Izod Impact Strength t 3.2mm (t 0.126in) | ASTM D256 | kg _f · cm/cm(ft · lb/in) | 6.8 (1.2) |
| Rockwell Hardness M scale | ASTM D785 | — | M80 |
| Electrical | | | |
| Dielectric Strength 10 ⁶ Hz | ASTM D150 | — | |
| Dielectric Dissipation Factor 10 ⁶ Hz | ASTM D150 | — | |
| Surface Resistivity | ASTM D257 | Ω | 1 x 10 ¹⁶ |
| Volume Resistivity | ASTM D257 | Ω · cm | 1 x 10 ¹⁴ |
| Dielectric Strength | ASTM D149 | kV/mm | |
| Molding Shrinkage (//Direction) t 3mm, Φ 100mm | | % | 2.0 |

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