# ColorRx® PEEK-3000RX

**Product Description** PEEK-3000RX is a high flow injection molding grade of polyetheretherketone (PEEK) with excellent chemical resistance and radiation resistance. It is suitable for healthcare applications.

**Material Status** Commercial: Active

**Availability** Africa & Middle East, Asia Pacific, Europe, Latin America, North America

**Features** Autoclave Sterilizable, Biocompatible, E-beam Sterilizable, Ethylene Oxide Sterilizable, Excellent Colorability, Heat Sterilizable, Radiation Sterilizable, Steam Sterilizable

**Uses** Aerospace Applications, Connectors, Engineering Parts, Industrial Parts, Medical/Healthcare Applications, Metal Replacement, Surgical Instruments

**Forms** Pellets

**Processing Method** Injection Molding

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 1.30 | g/cm³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (400°C/2.16 kg) | 36 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow (3.18 mm) | 1.4 to 1.6 | % | ASTM D955 |
| Water Absorption (24 hr) | 0.10 | % | ASTM D570 |

| Mechanical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Tensile Strength [2] (Yield) | 99.3 | MPa | ASTM D638 |
| Tensile Elongation [2] | | | ASTM D638 |
| Yield | 5.2 | % | |
| Break | 10 to 20 | % | |
| Flexural Modulus [2] | 3790 | MPa | ASTM D790 |
| Flexural Strength [2] | 152 | MPa | ASTM D790 |

| Impact | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Notched Izod Impact (23°C) | 51 | J/m | ASTM D256 |

| Hardness | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Rockwell Hardness (R-Scale) | 102 | | ASTM D785 |

| Thermal | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Deflection Temperature Under Load (1.8 MPa, Annealed) | 160 | °C | ASTM D648 |

**Notes**

[1] Typical properties: these are not to be construed as specifications.

[2] 51 mm/min

Properties provided are only typical values and Americhem assumes no liability for the customer's use of the information provided. The customer assumes all responsibility for testing determining this products suitability in the customer's specific end application.

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