

# PLUSTEK RA601

Polyamide 66

Polyram Ram-On Industries

Message:

HEAT RESISTANCE POLYAMIDE 66 FOR INJECTION MOULDING APPLICATIONS.

| General Information                                 |                       |                   |                         |
|-----------------------------------------------------|-----------------------|-------------------|-------------------------|
| Features                                            | Heat resistance, high |                   |                         |
| Processing Method                                   | Injection molding     |                   |                         |
| Physical                                            | Nominal Value         | Unit              | Test Method             |
| Specific Gravity                                    | 1.14                  | g/cm <sup>3</sup> | ASTM D792, ISO 1183     |
| Molding Shrinkage                                   |                       |                   |                         |
| Flow                                                | 1.4 - 1.8             | %                 | ASTM D955               |
| --                                                  | 1.4 - 1.8             | %                 | ISO 2577                |
| Water Absorption                                    |                       |                   |                         |
| Saturation                                          | 8.5                   | %                 | ASTM D570               |
| Saturated, 23°C                                     | 8.5                   | %                 | ISO 62                  |
| Equilibrium, 23°C, 50% RH                           | 2.8                   | %                 | ASTM D570, ISO 62       |
| Hardness                                            | Nominal Value         | Unit              | Test Method             |
| Rockwell Hardness                                   |                       |                   |                         |
| Class r                                             | 118                   |                   | ASTM D785               |
| R scale                                             | 118                   |                   | ISO 2039-2              |
| Mechanical                                          | Nominal Value         | Unit              | Test Method             |
| Tensile Strength (Yield)                            | 85.0                  | MPa               | ASTM D638, ISO 527-2    |
| Tensile Elongation (Break)                          | 10                    | %                 | ASTM D638, ISO 527-2    |
| Flexural Modulus                                    | 2700                  | MPa               | ASTM D790, ISO 178      |
| Flexural Strength                                   | 120                   | MPa               | ASTM D790, ISO 178      |
| Impact                                              | Nominal Value         | Unit              | Test Method             |
| Notched Izod Impact                                 |                       |                   |                         |
| 23°C                                                | 55                    | J/m               | ASTM D256               |
| 23°C                                                | 5.5                   | kJ/m <sup>2</sup> | ISO 180                 |
| Thermal                                             | Nominal Value         | Unit              | Test Method             |
| Deflection Temperature Under Load                   |                       |                   |                         |
| 0.45 MPa, not annealed                              | 210                   | °C                | ASTM D648, ISO 75-2/B   |
| 1.8 MPa, not annealed                               | 100                   | °C                | ASTM D648, ISO 75-2/A   |
| Maximum operating temperature-Short Peaks Operation | 200                   | °C                |                         |
| Maximum Continuous Use Temperature                  | 80                    | °C                |                         |
| Melting Temperature                                 | 256                   | °C                | ISO 11357-3, ASTM D3418 |
| Electrical                                          | Nominal Value         | Unit              | Test Method             |

|                              |               |         |                |
|------------------------------|---------------|---------|----------------|
| Surface Resistivity          | 1.0E+13       | ohms    | IEC 60093      |
| Volume Resistivity           | 1.0E+17       | ohms·cm | IEC 60093      |
| Dielectric Strength          | 120           | kV/mm   | IEC 60243-1    |
| Dielectric Constant (1 MHz)  | 3.60          |         | IEC 60250      |
| Flammability                 | Nominal Value | Unit    | Test Method    |
| Flame Rating (3.00 mm)       | V-2           |         | UL 94          |
| Glow Wire Flammability Index | 850           | °C      | IEC 60695-2-12 |
| Injection                    | Nominal Value | Unit    |                |
| Drying Temperature           | 85.0          | °C      |                |
| Drying Time                  | 3.0           | hr      |                |
| Suggested Max Moisture       | 0.15          | %       |                |
| Rear Temperature             | 270 - 280     | °C      |                |
| Middle Temperature           | 280 - 300     | °C      |                |
| Front Temperature            | 285 - 310     | °C      |                |
| Mold Temperature             | 65.0 - 110    | °C      |                |
| Injection Pressure           | 70.0 - 125    | MPa     |                |
| Injection Rate               | Fast          |         |                |
| Holding Pressure             | 35.0 - 85.0   | MPa     |                |
| Back Pressure                | 0.350 - 0.700 | MPa     |                |
| Screw Speed                  | 60 - 90       | rpm     |                |
| Injection instructions       |               |         |                |

Fill Speed: 50 to 75 mm/sec

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