



# Maxxam™ MX5200-5006 RS NATURAL

## Polypropylene Homopolymer

### Key Characteristics

#### Product Description

PolyOne's Maxxam™ family of polypropylene- and polyethylene-based products covers a wide range of applications, markets and performance requirements. Standard grades are compounded with calcium carbonate, glass and talc to provide a desired balance of properties including stiffness, durability, impact resistance and heat resistance. Custom grades are available with features such as UV stabilizers, heat stabilizers, custom color, high impact, etc.

#### General

|                        |                                                          |                                              |                           |
|------------------------|----------------------------------------------------------|----------------------------------------------|---------------------------|
| Material Status        | • Commercial: Active                                     |                                              |                           |
| Regional Availability  | • Africa & Middle East<br>• Asia Pacific                 | • Europe<br>• Latin America                  | • North America           |
| Filler / Reinforcement | • Talc/Mineral                                           |                                              |                           |
| Features               | • General Purpose                                        | • Homopolymer                                |                           |
| Uses                   | • Automotive Applications<br>• Construction Applications | • Consumer Applications<br>• General Purpose | • Industrial Applications |
| Appearance             | • Natural Color                                          |                                              |                           |
| Forms                  | • Pellets                                                |                                              |                           |
| Processing Method      | • Injection Molding                                      |                                              |                           |

### Technical Properties <sup>1</sup>

| Physical                                                     | Typical Value (English)   | Typical Value (SI)    | Test Method |
|--------------------------------------------------------------|---------------------------|-----------------------|-------------|
| Specific Gravity                                             | 1.05                      | 1.05                  | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)                    | 7.6 g/10 min              | 7.6 g/10 min          | ISO 1133    |
| Molding Shrinkage - Flow                                     | 5.0E-3 to 0.010 in/in     | 0.50 to 1.0 %         | ISO 294-4   |
| Mechanical                                                   | Typical Value (English)   | Typical Value (SI)    | Test Method |
| Tensile Stress (Yield)                                       | 5080 psi                  | 35.0 MPa              | ISO 527-2   |
| Flexural Modulus                                             | 365000 psi                | 2520 MPa              | ISO 178     |
| Impact                                                       | Typical Value (English)   | Typical Value (SI)    | Test Method |
| Charpy Notched Impact Strength                               | 1.7 ft-lb/in <sup>2</sup> | 3.5 kJ/m <sup>2</sup> | ISO 179     |
| Thermal                                                      | Typical Value (English)   | Typical Value (SI)    | Test Method |
| Heat Deflection Temperature<br>264 psi (1.8 MPa), Unannealed | 153 °F                    | 67.0 °C               | ISO 75-2/A  |
| Flammability                                                 | Typical Value (English)   | Typical Value (SI)    | Test Method |
| Burning Rate                                                 | 0.76 in/min               | 19 mm/min             | ISO 3795    |

### Processing Information

| Injection          | Typical Value (English) | Typical Value (SI) |
|--------------------|-------------------------|--------------------|
| Drying Temperature | 176 °F                  | 80.0 °C            |
| Drying Time        | 1.0 hr                  | 1.0 hr             |
| Rear Temperature   | 365 to 392 °F           | 185 to 200 °C      |
| Middle Temperature | 392 to 419 °F           | 200 to 215 °C      |
| Front Temperature  | 401 to 428 °F           | 205 to 220 °C      |
| Nozzle Temperature | 401 to 428 °F           | 205 to 220 °C      |
| Mold Temperature   | 104 °F                  | 40.0 °C            |
| Injection Rate     | Moderate                | Moderate           |
| Back Pressure      | 1160 psi                | 8.00 MPa           |

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## Notes

<sup>1</sup> Typical values are not to be construed as specifications.

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