



# Maxxam™ 90 H-CSL Natural 70

## 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 | • Europe  |
| Features              | • Copper Contact Stabilized • Good Stiffness • Heat Stabilized<br>• Good Processability • Good Strength • High Flow |
| Uses                  | • Appliances • Consumer Applications • Industrial Applications<br>• Automotive Applications • General Purpose       |
| RoHS Compliance       | • RoHS Compliant  |
| Appearance            | • Natural Color   |
| Forms                 | • Pellets   |
| Processing Method     | • Injection Molding   |

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

| Physical                         | Typical Value (English)  | Typical Value (SI)      | Test Method     |
|----------------------------------|--------------------------|-------------------------|-----------------|
| Density                          | 0.900 g/cm <sup>3</sup>  | 0.900 g/cm <sup>3</sup> | ISO 1183        |
| Melt Mass-Flow Rate (MFR)        |                          |                         | ISO 1133        |
| 190°C/2.16 kg                    | 30 g/10 min              | 30 g/10 min             |                 |
| 230°C/2.16 kg                    | 80 g/10 min              | 80 g/10 min             |                 |
| Molding Shrinkage                |                          |                         | Internal Method |
| Across Flow                      | 1.7 to 1.9 %             | 1.7 to 1.9 %            |                 |
| Flow                             | 1.7 to 1.9 %             | 1.7 to 1.9 %            |                 |
| Mechanical                       | Typical Value (English)  | Typical Value (SI)      | Test Method     |
| Tensile Modulus                  | 218000 psi               | 1500 MPa                | ISO 527-2/1     |
| Tensile Stress                   | 4350 psi                 | 30.0 MPa                | ISO 527-2/50    |
| Tensile Strain (Yield)           | 4.0 %                    | 4.0 %                   | ISO 527-2/50    |
| Impact                           | Typical Value (English)  | Typical Value (SI)      | Test Method     |
| Charpy Unnotched Impact Strength | 14 ft·lb/in <sup>2</sup> | 30 kJ/m <sup>2</sup>    | ISO 179/1eU     |
| Thermal                          | Typical Value (English)  | Typical Value (SI)      | Test Method     |
| Heat Deflection Temperature      |                          |                         | ISO 75-2/B      |
| 66 psi (0.45 MPa), Unannealed    | 185 °F                   | 85.0 °C                 |                 |
| Melting Temperature              | 320 to 329 °F            | 160 to 165 °C           |                 |
| Flammability                     | Typical Value (English)  | Typical Value (SI)      | Test Method     |
| Flame Rating (0.06 in (1.6 mm))  | HB                       | HB                      | UL 94           |

### Processing Information

| Injection          | Typical Value (English) | Typical Value (SI) |
|--------------------|-------------------------|--------------------|
| Drying Temperature | 176 °F                  | 80 °C              |
| Drying Time        | 1.0 hr                  | 1.0 hr             |
| Rear Temperature   | 347 to 365 °F           | 175 to 185 °C      |
| Middle Temperature | 356 to 374 °F           | 180 to 190 °C      |

| Injection          | Typical Value (English) | Typical Value (SI) |
|--------------------|-------------------------|--------------------|
| Front Temperature  | 365 to 383 °F           | 185 to 195 °C      |
| Nozzle Temperature | 374 to 392 °F           | 190 to 200 °C      |
| Mold Temperature   | 131 to 176 °F           | 55 to 80 °C        |

**Notes**

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



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