# SUPREME Specialty PS SP6410 0003

High Impact Polystyrene

Supreme Petrochem Ltd.

## Message:

SUPREME Specialty PS SP6410 0003 is a high impact polystyrene product. It can be processed by injection molding and is available in North America, Africa and the Middle East, Europe or Asia Pacific. The application fields of SUPREME Specialty PS SP6410 0003 include engineering/industrial accessories, electrical/electronic applications, commercial/office supplies, food contact applications and audio/video.
Features include:
flame retardant/rated flame
Wear-resistant
Heat resistance

| General Information | | | |
|---|---|---|---|
| Features | Good coloring<br>Good wear resistance<br>Good wear resistance<br>Thermal stability, good<br>Self-lubricating | | |
| Uses | Thin wall parts<br>Video tape<br>Audio tape<br>Business equipment<br>Bearing | | |
| Agency Ratings | FDA 21 CFR 177.1640 | | |
| Forms | Particle | | |
| Processing Method | Injection molding | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Specific Gravity | 1.04 | g/cm³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 6.0 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow (23°C, 24 hours, 3.20mm, injection molding) | 0.40 - 0.70 | % | ASTM D955 |
| Water Absorption (23°C, 24 hr) | 0.10 | % | ASTM D570 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Rockwell Hardness (l scale, 3.20mm) | 70 | | ASTM D785 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength [1] (23°C, 3.20 mm, Injection Molded) | 32.0 | MPa | ASTM D638 |
| Tensile Elongation [2] (Break, 23°C, 3.20 mm, Injection Molded) | 30 | % | ASTM D638 |
| Flexural Modulus (23°C, 3.20 mm, Injection Molded) | 2200 | MPa | ASTM D790 |

| | | | |
|---|---|---|---|
| Flexural Strength (23°C, 3.20 mm, Injection Molded) | 48.0 | MPa | ASTM D790 |
| Coefficient of Friction (vs. Itself - Dynamic) | 0.20 | | ASTM D1894 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact (23°C, 3.20 mm, Injection Molded) | 90 | J/m | ASTM D256 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm, Injection Molded) | 82.0 | °C | ASTM D648 |
| Vicat Softening Temperature | 101 | °C | ASTM D1525 [3] |
| **Flammability** | **Nominal Value** | | **Test Method** |
| Flame Rating (1.60 mm) | HB | | UL 94 |
| **Additional Information** | | | |
| Ball Pressure Temperature, IEC335-1, 3.2mm, Injection molded: 75°CThe value listed as Mold Shrink ASTM D955, was tested in accordance with ASTM D792.Coef. of Friction, ASTM D1894, Dynamic: < 0.20 | | | |
| **Injection** | **Nominal Value** | **Unit** | |
| Processing (Melt) Temp | 180 - 260 | °C | |
| Mold Temperature | 40.0 - 60.0 | °C | |
| **NOTE** | | | |
| 1. | 50 mm/min | | |
| 2. | 50 mm/min | | |
| 3. | 标准 B (120°C/h), 压 力1 (10N) | | |



## Recommended distributors for this material

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