

VALOX™ Resin 309 Americas: COMMERCIAL

PBT, For compounding only. Not intended for Injection Molding. Melt viscosity: 250C at 21.6 kgf is 3500-4500. Available in Natural (1001) only.

| YPICAL PROPERTIES ¹ | TYPICAL VALUE | Unit | Standard |
|--|---------------|-----------|--------------|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 50 mm/min | 330 | kgf/cm² | ASTM D 638 |
| Tensile Stress, brk, Type I, 50 mm/min | 550 | kgf/cm² | ASTM D 638 |
| Tensile Strain, brk, Type I, 50 mm/min | 127 | % | ASTM D 638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 780 | kgf/cm² | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 22000 | kgf/cm² | ASTM D 790 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 206 | cm-kgf/cm | ASTM D 4812 |
| Izod Impact, notched, 23°C | 6 | cm-kgf/cm | ASTM D 256 |
| THERMAL | | | |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 115 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 45 | °C | ASTM D 648 |
| PHYSICAL | | | |
| Specific Gravity | 1.31 | - | ASTM D 792 |
| Mold Shrinkage, flow, 3.2 mm (5) | 1.9 - 2.1 | % | SABIC Method |
| Mold Shrinkage, xflow, 3.2 mm (5) | 2 - 2.2 | % | SABIC Method |
| Melt Viscosity | 4000 | poise | SABIC Method |

Source GMD, last updated:

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⁽¹⁾ Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

⁽²⁾ Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.
(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.



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Americas: COMMERCIAL

| ROCESSING PARAMETERS | TYPICAL VALUE | Unit |
|-----------------------------|---------------|------|
| Compounding Extrusion | | |
| Drying Temperature | 110 - 120 | °C |
| Drying Time | 4 - 6 | hrs |
| Drying Time (Cumulative) | 8 | hrs |
| Maximum Moisture Content | 0 | % |
| Melt Temperature | 245 - 260 | °C |
| Barrel - Zone 1 Temperature | 200 - 230 | °C |
| Barrel - Zone 2 Temperature | 240 - 255 | °C |
| Barrel - Zone 3 Temperature | 240 - 275 | °C |
| Barrel - Zone 4 Temperature | 240 - 275 | °C |
| Adapter Temperature | 240 - 275 | °C |
| Die Temperature | 240 - 275 | °C |
| Waterbath Temperature | 25 - 35 | °C |

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