Technical Data Sheet

# *Diamond* ASA S310 1828 UVBLK

Acrylonitrile Styrene Acrylate

## Product Description

*Diamond* ASA S310 1828 UVBLK is a Acrylonitrile Styrene Acrylate material and is typically used in Injection Molding applications. Features include: Good Stiffness, Good Weather Resistance, and Medium Impact Resistance.

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|---|---|
| **Processing Method** | Injection Molding |
| **Attribute** | Good Stiffness; Good Weather Resistance; Medium Impact Resistance |
| **Forms** | Pellets |

| Typical Properties | Nominal Value | Units | Test Method |
|---|---|---|---|
| **Physical** | | | |
| Melt Flow Rate, (230 °C/3.8 kg, Procedure A) | 4.0 | g/10 min | ASTM D1238 |
| Density - Specific Gravity | 1.06 | g/cm³ | ASTM D792 |
| **Mechanical** | | | |
| Tensile Strength at Yield, (51 mm/min) | 46.9 | MPa | ASTM D638 |
| Flexural Modulus, (1.3 mm/min, Tangent) | 2410 | MPa | ASTM D790 |
| **Impact** | | | |
| Notched Izod Impact, (23 °C, 3.18 mm) | 140 | J/m | ASTM D256 |
| **Thermal** | | | |
| Vicat Softening Temperature, (Loading 1 (10 N)) | 95.0 | °C | ASTM D1525 |
| Deflection Temperature Under Load Unannealed (264 psi) | | | |
| (3.18 mm) | 78.9 | °C | ASTM D648 |
| (6.35 mm) | 82.2 | °C | ASTM D648 |
| **UL Information** | | | |
| Flame Rating, (38.1 mm) | HB | | UL 94 |
| UL File Number, (USA) | E150937 | | |

| Injection Parameters | Nominal Value | Units |
|---|---|---|
| Drying Time | 2.0 to 4.0 | hr |
| Drying Temperature | 80 to 85 | °C |
| Suggested Max Moisture | 0.1 | % |
| Nozzle Temperature | 220 to 272 | °C |
| Processing (Melt) Temp | 220 to 272 | °C |
| Front Temperature | 235 to 272 | °C |
| Suggested Shot Size | 40 to 70 | % |
| Middle Temperature | 232 to 265 | °C |
| Rear Temperature | 230 to 260 | °C |
| Injection Rate | Fast | |
| Back Pressure | 0.517 to 1.03 | MPa |
| Mold Temperature | 40 to 80 | °C |