

Westlake Ardel®

Polyarylate

Westlake Plastics Company

Message:

Stock shapes extruded from Ardel® resin are specifically formulated to endure the damaging effects of UV light. When exposed to UV light, this unique material undergoes a molecular rearrangement resulting in the formation of a protective layer that essentially serves as a UV stabilizer. This inherent UV stability combined with superior retention of optical and mechanical properties make polyarylate an ideal choice for any application where weathering effects could pose a problem.

Applications Include:

Semiconductor components

Solar energy components

Appliance parts

Snap lock connectors

Advantages of Ardel:

Exceptional UV stability

Transparency

Toughness

Excellent flexural fatigue resistance

| General Information | | | |
|-----------------------------|---------------------------------|-------------------|-------------|
| Features | Good Toughness | | |
| | Good UV Resistance | | |
| | Good Weather Resistance | | |
| | Opticals | | |
| Uses | Appliance Components | | |
| | Connectors | | |
| | Semiconductor Molding Compounds | | |
| Appearance | Amber | | |
| | Clear/Transparent | | |
| Forms | Film | | |
| | Rod | | |
| | Sheet | | |
| | Slab | | |
| Physical | Nominal Value | Unit | Test Method |
| Specific Gravity | 1.21 | g/cm ³ | ASTM D792 |
| Water Absorption (24 hr) | 0.26 | % | ASTM D570 |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale) | 125 | | ASTM D785 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength (Yield) | 68.9 | MPa | ASTM D638 |

| | | | |
|---|---------------|----------|-------------|
| Tensile Elongation (Break) | 60 | % | ASTM D638 |
| Flexural Modulus | 2100 | MPa | ASTM D790 |
| Flexural Strength (Yield) | 84.1 | MPa | ASTM D790 |
| Compressive Strength | 84.1 | MPa | ASTM D695 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (23°C) | 220 | J/m | ASTM D256 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 175 | °C | ASTM D648 |
| CLTE - Flow | 6.1E-5 | cm/cm/°C | ASTM D696 |
| Electrical | Nominal Value | Unit | Test Method |
| Volume Resistivity | 2.0E+16 | ohms·cm | ASTM D257 |
| Dielectric Strength | 39 | kV/mm | ASTM D149 |
| Dielectric Constant (1 MHz) | 3.00 | | ASTM D150 |
| Dissipation Factor (1 kHz) | 0.015 | | ASTM D150 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating | V-2 | | UL 94 |
| Optical | Nominal Value | Unit | Test Method |
| Transmittance (3000 μm) | 87.0 | % | ASTM D1003 |

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