# DuraStar™ DS2110UVI

Thermoplastic Polyester

Eastman Chemical Company

## Message:

Durastar™ DS2110UVI polymer, contains an ultraviolet light stabilization package. It is recommended for indoor applications requiring enhanced color stability upon extended exposure to fluorescent light. It has excellent appearance and is nearly water-clear. Its other most outstanding features are toughness, chemical resistance, and excellent processing characteristics. DS2110UVI has very good toughness as shown by Izod impact resistance. Easy to process, it flows readily, fills intricate molds, and contains a mold release.
This product is certified to ANSI/NSF Standard 51.

| General Information | |
|---|---|
| Additive | Mold Release |
| | UV Stabilizer |
| Features | Fast Molding Cycle |
| | Good Chemical Resistance |
| | Good Color Stability |
| | Good Flow |
| | Good Impact Resistance |
| | Good Processability |
| | Good Toughness |
| | Good UV Resistance |
| | High Clarity |
| Uses | Appliance Components |
| | Appliances |
| | Flooring Maintenance/Repair |
| | Furniture |
| | Household Goods |
| | Sporting Goods |
| | Toys |
| Agency Ratings | NSF 51 |
| Appearance | Natural Color |
| Forms | Pellets |
| Processing Method | Injection Molding |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Specific Gravity | | | |
| -- | 1.20 | g/cm³ | ASTM D792 |
| 23°C | 1.19 | g/cm³ | ISO 1183 |
| Molding Shrinkage - Flow (3.20 mm) | 0.20 to 0.60 | % | ASTM D955 |

| Hardness | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Rockwell Hardness (R-Scale, 23°C) | 105 | | ASTM D785 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength | | | |
| Yield, 23°C | 46.0 | MPa | ASTM D638 |
| Yield, 23°C | 47.0 | MPa | ISO 527-2 |
| Break, 23°C | 53.0 | MPa | ASTM D638 |
| Break, 23°C | 49.0 | MPa | ISO 527-2 |
| Tensile Elongation | | | |
| Yield, 23°C | 5.0 | % | ASTM D638 |
| Yield, 23°C | 4.0 | % | ISO 527-2 |
| Break, 23°C | 310 | % | ASTM D638 |
| Break, 23°C | 210 | % | ISO 527-2 |
| Flexural Modulus | | | |
| 23°C | 1900 | MPa | ASTM D790 |
| 23°C | 1750 | MPa | ISO 178 |
| Flexural Stress | | | |
| 23°C | 64.0 | MPa | ISO 178 |
| Yield, 23°C | 67.0 | MPa | ASTM D790 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | | | |
| -40°C | 60 | J/m | ASTM D256 |
| 23°C | 370 | J/m | ASTM D256 |
| -40°C | 6.3 | $kJ/m^2$ | ISO 180 |
| 23°C | 30 | $kJ/m^2$ | ISO 180 |
| Unnotched Izod Impact | | | ASTM D4812 |
| -40°C | No Break | | |
| 23°C | No Break | | |
| Instrumented Dart Impact | | | |
| -40°C, Energy at Peak Load | 48.0 | J | ASTM D3763 |
| 23°C, Energy at Peak Load | 45.0 | J | ASTM D3763 |
| -40°C, Energy to Peak Force | 55.0 | J | ISO 6603-2 |
| 23°C, Energy to Peak Force | 71.0 | J | ISO 6603-2 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load | | | |
| 0.45 MPa, Unannealed | 73.0 | °C | ASTM D648, ISO 75-2/B |
| 1.8 MPa, Unannealed | 65.0 | °C | ASTM D648 |
| 1.8 MPa, Unannealed | 66.0 | °C | ISO 75-2/A |
| **Optical** | **Nominal Value** | **Unit** | **Test Method** |
| Transmittance | | | ASTM D1003 |
| Total | 91.0 | % | |
| Regular | 89.0 | % | |

| | | | |
|---|---|---|---|
| Haze | 0.30 | % | ASTM D1003 |

| Injection | Nominal Value | Unit |
|---|---|---|
| Drying Temperature | 70.0 | °C |
| Drying Time | 3.0 | hr |
| Processing (Melt) Temp | 250 to 290 | °C |
| Mold Temperature | 15.0 to 30.0 | °C |



## Recommended distributors for this material

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