# Eastar™ AN011, Natural

Copolyester

Eastman Chemical Company

## Message:

Eastar™ AN011 copolyester is a high flow product. Eastar™ AN011 flow lengths are increased 20-40% relative to Eastar™ AN001 as shown by spiral flow testing. Other outstanding features of Eastar™ are easily maintained such as excellent appearance and clarity, good physical properties, chemical resistance, and easy processing. This high flow product is especially suited for those applications utilizing thin-walled intricate tools. Under existing United States Food and Drug Administration (FDA) regulations, Eastar™ AN011 may be used in food contact articles which comply with the specifications and conditions of use in 21 CFR 177.1240.
This product has been GREENGUARD INDOOR AIR QUALITY CERTIFIED®.
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| General Information | | | |
|---|---|---|---|
| UL YellowCard | E118289-220109 | | |
| Features | Food Contact Acceptable<br>Good Chemical Resistance<br>Good Processability<br>High Flow<br>Medium Clarity<br>Pleasing Surface Appearance | | |
| Uses | Cosmetic Packaging<br>Packaging<br>Personal Care<br>Thin-walled Parts | | |
| Agency Ratings | FDA 21 CFR 177.1240 | | |
| Appearance | Natural Color | | |
| Forms | Pellets | | |
| Processing Method | Injection Molding | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Specific Gravity | 1.19 | g/cm³ | ASTM D792 |
| Molding Shrinkage - Flow | 0.30 | % | ASTM D955 |
| Water Absorption (23°C, 24 hr) | 0.15 | % | ASTM D570 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Rockwell Hardness (R-Scale, 23°C) | 107 | | ASTM D785 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength | | | ASTM D638 |
| Yield, 23°C | 50.0 | MPa | |

| | | | |
|---|---|---|---|
| Break, 23°C | 43.0 | MPa | |
| Tensile Elongation | | | ASTM D638 |
| Yield, 23°C | 5.0 | % | |
| Break, 23°C | 270 | % | |
| Flexural Modulus (23°C) | 1900 | MPa | ASTM D790 |
| Flexural Strength (Yield, 23°C) | 68.0 | MPa | ASTM D790 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | | | ASTM D256 |
| -40°C | 44 | J/m | |
| 23°C | 80 | J/m | |
| Unnotched Izod Impact | | | ASTM D4218 |
| -40°C | No Break | | |
| 23°C | No Break | | |
| Instrumented Dart Impact | | | ASTM D3763 |
| -40°C, Energy at Peak Load | 38.0 | J | |
| 23°C, Energy at Peak Load | 40.0 | J | |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, Unannealed | 73.0 | °C | |
| 1.8 MPa, Unannealed | 66.0 | °C | |
| Vicat Softening Temperature | 86.0 | °C | ASTM D1525 [1] |
| **Optical** | **Nominal Value** | **Unit** | **Test Method** |
| Transmittance (Total) | 92.0 | % | ASTM D1003 |
| Haze | < 1.0 | % | ASTM D1003 |
| **Injection** | **Nominal Value** | **Unit** | |
| Drying Temperature | 70.0 | °C | |
| Drying Time | 4.0 | hr | |
| Processing (Melt) Temp | 230 to 280 | °C | |
| Mold Temperature | 15.0 to 30.0 | °C | |
| **NOTE** | | | |
| 1. | Loading 1 (10 N) | | |



Recommended distributors for this material

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