

Arnitel® EM630
Envalior - Thermoplastic Copolyester Elastomer
General Information
Product Description

Extrusion Grade, Food Contact Quality

General

| | | | |
|-------------------|---------------------------|-----------------|-----------------|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East | • Europe | • North America |
| | • Asia Pacific | • Latin America | |
| Features | • Food Contact Acceptable | | |
| Processing Method | • Extrusion | | |
| Resin ID | • TPC-ET | | |

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|------------------------|-------------|
| Density | 1.24 | g/cm ³ | ISO 1183 |
| Apparent (Bulk) Density | 0.76 | g/cm ³ | ISO 60 |
| Melt Volume-Flow Rate (MVR) (230°C/2.16 kg) | 4.0 | cm ³ /10min | ISO 1133 |
| Molding Shrinkage | | | ISO 294-4 |
| Across Flow | 1.8 | % | |
| Flow | 1.5 | % | |
| Water Absorption (Saturation, 73°F) | 0.60 | % | ISO 62 |
| Water Absorption (Equilibrium, 73°F, 50% RH) | 0.20 | % | ISO 62 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 39900 | psi | ISO 527-1 |
| Tensile Stress | | | ISO 527-2 |
| Break | 3920 | psi | |
| Across Flow : Break | 7110 | psi | |
| Tensile Stress | | | ISO 527-2 |
| 5.0% Strain | 1740 | psi | |
| 10% Strain | 2470 | psi | |
| 50% Strain | 3050 | psi | |
| 100% Strain | 3050 | psi | |
| Tensile Strain - Across Flow (Break) | 680 | % | ISO 527-2 |
| Nominal Tensile Strain at Break | 220 | % | ISO 527-2 |
| Flexural Modulus | 40600 | psi | ISO 178 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tear Strength ² | | | ISO 34-1 |
| Across Flow | 822 | lbf/in | |
| Flow | 919 | lbf/in | |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength | | | ISO 179/1eA |
| -22°F | 5.7 | ft·lb/in ² | |
| 73°F | No Break | | |
| Charpy Unnotched Impact Strength | | | ISO 179/1eU |
| -22°F | No Break | | |
| 73°F | No Break | | |
| Notched Izod Impact Strength (73°F) | No Break | | ISO 180/1A |
| Hardness | Nominal Value | Unit | Test Method |
| Shore Hardness (Shore D, 3 sec) | 60 | | ISO 868 |



| Thermal | Nominal Value | Unit | Test Method |
|---------------------------------------|----------------------|-------------|----------------------|
| Vicat Softening Temperature | 257 | °F | ISO 306/B50 |
| Melting Temperature ³ | 414 | °F | ISO 11357-3 |
| CLTE - Flow | 1.0E-4 | in/in/°F | ISO 11359-2 |
| CLTE - Transverse | 1.0E-4 | in/in/°F | ISO 11359-2 |
| Electrical | Nominal Value | Unit | Test Method |
| Volume Resistivity | 1.0E+12 | ohms·m | IEC 62631-3-1 |
| Electric Strength | 560 | V/mil | IEC 60243-1 |
| Relative Permittivity | | | IEC 62631-2-1 |
| 100 Hz | 3.80 | | |
| 1 MHz | 3.40 | | |
| Dissipation Factor | | | IEC 62631-2-1 |
| 100 Hz | 0.011 | | |
| 1 MHz | 0.034 | | |
| Comparative Tracking Index | 600 | V | IEC 60112 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating (0.06 in) | HB | | UL 94 |
| Flammability Classification (0.06 in) | HB | | IEC 60695-11-10, -20 |

Notes

¹ Typical properties: these are not to be construed as specifications.

² Method B, Angle

³ 10°C/min

