# Arnite® A04 900

Polyethylene Terephthalate

**DSM Engineering Materials**

## Technical Data

| Product Description | | | |
|---|---|---|---|
| Medium Viscosity, Nucleated, Food Contact Quality | | | |
| **General** | | | |
| Additive | • Nucleating Agent | | |
| Features | • Food Contact Acceptable | • Medium Viscosity | • Nucleated |
| Processing Method | • Injection Molding | | |
| Multi-Point Data | • Isothermal Stress vs. Strain (ISO 11403-1) | • Secant Modulus vs. Strain (ISO 11403-1) | |
| Resin ID | • PET | | |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 1.37 | g/cm³ | ISO 1183 |
| Molding Shrinkage | | | ISO 294-4 |
| Across Flow | 1.7 | % | |
| Flow | 1.7 | % | |
| Water Absorption | | | ISO 62 |
| Saturation, 23°C | 0.50 | % | |
| Equilibrium, 23°C, 50% RH | 0.20 | % | |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | 2800 | MPa | ISO 527-1 |
| Tensile Stress (Yield) | 80.0 | MPa | ISO 527-2 |
| Tensile Strain (Yield) | 4.0 | % | ISO 527-2 |
| Nominal Tensile Strain at Break | 12 | % | ISO 527-2 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength (23°C) | 3.0 | kJ/m² | ISO 179/1eA |
| Charpy Unnotched Impact Strength (23°C) | No Break | | ISO 179/1eU |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load | | | |
| 0.45 MPa, Unannealed | 115 | °C | ISO 75-2/B |
| 1.8 MPa, Unannealed | 80.0 | °C | ISO 75-2/A |
| Melting Temperature [4] | 255 | °C | ISO 11357-3 |
| CLTE | | | ISO 11359-2 |
| Flow | 7.0E-5 | cm/cm/°C | |
| Transverse | 7.0E-5 | cm/cm/°C | |
| RTI Elec | | | UL 746B |
| 0.75 mm | 75.0 | °C | |
| 3.0 mm | 75.0 | °C | |
| RTI Imp | | | UL 746B |
| 0.75 mm | 75.0 | °C | |
| 3.0 mm | 75.0 | °C | |
| RTI Str | | | UL 746B |
| 0.75 mm | 75.0 | °C | |
| 3.0 mm | 75.0 | °C | |

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| Electrical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Volume Resistivity | > 1.0E+13 | ohms·m | IEC 62631-3-1 |
| Relative Permittivity | | | IEC 62631-2-1 |
| 1 MHz | 3.20 | | |
| 100 Hz | 3.30 | | |
| Dissipation Factor | | | IEC 62631-2-1 |
| 100 Hz | 2.0E-3 | | |
| 1 MHz | 2.1E-3 | | |

| Flammability | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Flame Rating | | | UL 94<br>IEC 60695-11-10, -20 |
| 1.5 mm | HB | | |
| 3.0 mm | HB | | |