

**Arnite® AV2 372**

Envalior - Polyethylene Terephthalate

## General Information

**Product Description**

35% Glass Fiber Reinforced

**General**

|                        |                                                                                   |
|------------------------|-----------------------------------------------------------------------------------|
| Material Status        | • Commercial: Active                                                              |
| Availability           | • Africa & Middle East • Europe • North America<br>• Asia Pacific • Latin America |
| Filler / Reinforcement | • Glass Fiber, 35% Filler by Weight                                               |
| Processing Method      | • Injection Molding                                                               |
| Resin ID               | • PET-GF35                                                                        |

 Properties <sup>1</sup>

| Physical                                                | Nominal Value | Unit                  | Test Method    |
|---------------------------------------------------------|---------------|-----------------------|----------------|
| Density                                                 | 1.63          | g/cm <sup>3</sup>     | ISO 1183       |
| Molding Shrinkage                                       |               |                       | ISO 294-4      |
| Across Flow                                             | 0.95          | %                     |                |
| Flow                                                    | 0.25          | %                     |                |
| Water Absorption (Saturation, 73°F)                     | 0.45          | %                     | ISO 62         |
| Water Absorption (Equilibrium, 73°F, 50% RH)            | 0.18          | %                     | ISO 62         |
| Mechanical                                              | Nominal Value | Unit                  | Test Method    |
| Tensile Modulus                                         | 1.89E+6       | psi                   | ISO 527-1      |
| Tensile Stress (Break)                                  | 27600         | psi                   | ISO 527-2      |
| Tensile Strain (Break)                                  | 2.5           | %                     | ISO 527-2      |
| Impact                                                  | Nominal Value | Unit                  | Test Method    |
| Charpy Notched Impact Strength                          |               |                       | ISO 179/1eA    |
| -22°F                                                   | 4.8           | ft·lb/in <sup>2</sup> |                |
| 73°F                                                    | 4.8           | ft·lb/in <sup>2</sup> |                |
| Charpy Unnotched Impact Strength                        |               |                       | ISO 179/1eU    |
| -22°F                                                   | 24            | ft·lb/in <sup>2</sup> |                |
| 73°F                                                    | 24            | ft·lb/in <sup>2</sup> |                |
| Thermal                                                 | Nominal Value | Unit                  | Test Method    |
| Deflection Temperature Under Load (66 psi, Unannealed)  | 482           | °F                    | ISO 75-2/B     |
| Deflection Temperature Under Load (264 psi, Unannealed) | 455           | °F                    | ISO 75-2/A     |
| Ball Pressure Test (392°F)                              | Pass          |                       | IEC 60695-10-2 |
| Melting Temperature <sup>2</sup>                        | 491           | °F                    | ISO 11357-3    |
| CLTE - Flow                                             | 1.4E-5        | in/in/°F              | ISO 11359-2    |
| CLTE - Transverse                                       | 2.2E-5        | in/in/°F              | ISO 11359-2    |
| RTI Elec (0.030 in)                                     | 302           | °F                    | UL 746B        |
| RTI Imp                                                 |               |                       | UL 746B        |
| 0.030 in                                                | 248           | °F                    |                |
| 0.12 in                                                 | 266           | °F                    |                |
| RTI Str (0.030 in)                                      | 266           | °F                    | UL 746B        |
| Effective Thermal Diffusivity                           | 1.34E-4       | in <sup>2</sup> /s    |                |
| Electrical                                              | Nominal Value | Unit                  | Test Method    |
| Volume Resistivity                                      | > 1.0E+13     | ohms·m                | IEC 62631-3-1  |
| Electric Strength                                       | 860           | V/mil                 | IEC 60243-1    |
| Relative Permittivity                                   |               |                       | IEC 62631-2-1  |
| 100 Hz                                                  | 3.30          |                       |                |



|                                  |                      |                               |
|----------------------------------|----------------------|-------------------------------|
| 1 MHz                            | 3.10                 |                               |
| Dissipation Factor               |                      | IEC 62631-2-1                 |
| 100 Hz                           | 3.0E-3               |                               |
| 1 MHz                            | 0.013                |                               |
| Comparative Tracking Index (CTI) | PLC 2                | UL 746A                       |
| Comparative Tracking Index       | 250 V                | IEC 60112                     |
| <b>Flammability</b>              | <b>Nominal Value</b> | <b>Unit</b>                   |
| Flame Rating                     |                      | UL 94                         |
| 0.06 in                          | HB                   |                               |
| 0.12 in                          | HB                   |                               |
| Flammability Classification      |                      | IEC 60695-11-10, -20          |
| 0.030 in                         | HB                   |                               |
| 0.06 in                          | HB                   |                               |
| 0.12 in                          | HB                   |                               |
| <b>Fill Analysis</b>             | <b>Nominal Value</b> | <b>Unit</b>                   |
| Melt Density                     | 1.35                 | g/cm <sup>3</sup>             |
| Melt Specific Heat               | 0.399                | Btu/lb/°F                     |
| Melt Thermal Conductivity        | 1.4                  | Btu·in/hr/ft <sup>2</sup> /°F |
|                                  |                      | ASTM E1461                    |

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 10°C/min

