

**Durethan® AKV35HRH2.0 901510**  
**PA66-GF35**

Envalior

Injection Molding, 35% Glass Reinforced, Heat Stabilized, Hydrolysis resistant

ISO 1043 PA66-GF35

| Rheological properties      | dry / cond | Unit | Test Standard   |
|-----------------------------|------------|------|-----------------|
| <b>ISO Data</b>             |            |      |                 |
| Molding shrinkage, parallel | 0.4 / *    | %    | ISO 294-4, 2577 |
| Molding shrinkage, normal   | 1.1 / *    | %    | ISO 294-4, 2577 |

| Mechanical Properties                   | dry / cond   | Unit              | Test Standard |
|-----------------------------------------|--------------|-------------------|---------------|
| <b>ISO Data</b>                         |              |                   |               |
| Tensile Modulus                         | 11500 / 7800 | MPa               | ISO 527       |
| Stress at Break                         | 195 / 135    | MPa               | ISO 527       |
| Strain at Break                         | 3.1 / 6      | %                 | ISO 527       |
| Impact Strength (Charpy), +23°C         | 85 / 85      | kJ/m <sup>2</sup> | ISO 179/1eU   |
| Impact Strength (Charpy), -30°C         | 75 / 80      | kJ/m <sup>2</sup> | ISO 179/1eU   |
| Notched Impact Strength (Charpy), +23°C | 13 / 20      | kJ/m <sup>2</sup> | ISO 179/1eA   |
| Notched Impact Strength (Charpy), -30°C | - / 10       | kJ/m <sup>2</sup> | ISO 179/1eA   |

| Thermal Properties                          | dry / cond | Unit  | Test Standard  |
|---------------------------------------------|------------|-------|----------------|
| <b>ISO Data</b>                             |            |       |                |
| Melting Temperature (10°C/min)              | 262 / *    | °C    | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa)   | 245 / *    | °C    | ISO 75-1/-2    |
| Temp. of deflection under load (0.45 MPa)   | 250 / *    | °C    | ISO 75-1/-2    |
| Coeff. of Linear Therm. Expansion, parallel | 20 / *     | E-6/K | ISO 11359-1/-2 |
| Coeff. of Linear Therm. Expansion, normal   | 80 / *     | E-6/K | ISO 11359-1/-2 |
| Burning Behav. at 1.5 mm Nom. Thickn.       | HB / *     | class | UL 94          |
| Thickness tested                            | 1.5 / *    | mm    | -              |
| Oxygen index                                | 26 / *     | %     | ISO 4589-1/-2  |

| Electrical Properties        | dry / cond | Unit  | Test Standard |
|------------------------------|------------|-------|---------------|
| <b>ISO Data</b>              |            |       |               |
| Relative permittivity, 100Hz | 3.9 / -    | -     | IEC 62631-2-1 |
| Relative permittivity, 1MHz  | 3.6 / -    | -     | IEC 62631-2-1 |
| Dissipation Factor, 100Hz    | 100 / -    | E-4   | IEC 62631-2-1 |
| Dissipation Factor, 1MHz     | 150 / -    | E-4   | IEC 62631-2-1 |
| Volume Resistivity           | 1E13 / -   | Ohm*m | IEC 62631-3-1 |
| Electric Strength            | 35 / -     | kV/mm | IEC 60243-1   |
| Comparative tracking index   | 425 / -    | -     | IEC 60112     |

| Other Properties    | dry / cond | Unit              | Test Standard  |
|---------------------|------------|-------------------|----------------|
| <b>ISO Data</b>     |            |                   |                |
| Water Absorption    | 5.2 / *    | %                 | Sim. to ISO 62 |
| Humidity absorption | 1.7 / *    | %                 | Sim. to ISO 62 |
| Density             | 1410 / -   | kg/m <sup>3</sup> | ISO 1183       |

| Test specimen production            | Value | Unit | Test Standard |
|-------------------------------------|-------|------|---------------|
| <b>ISO Data</b>                     |       |      |               |
| Injection Molding, melt temperature | 290   | °C   | ISO 294       |
| Injection Molding, mold temperature | 80    | °C   | ISO 294       |

| Processing Recommendation Injection Molding | Value     | Unit | Test Standard |
|---------------------------------------------|-----------|------|---------------|
| Pre-drying - Temperature                    | 80        | °C   | -             |
| Pre-drying - Time                           | 2 - 6     | h    | -             |
| Melt temperature                            | 280 - 300 | °C   | -             |
| Mold temperature                            | 80 - 120  | °C   | -             |

**Characteristics**

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**PA66-GF35**

Envalior

**Processing**

Injection Molding

**Special Characteristics**

Heat aging stabilized

**Delivery form**

Pellets

**Chemical Resistance**

Hydrolysis

**Injection Molding**

**PREPROCESSING**

Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

**PROCESSING**

Melt temperature (Tmin - Tmax): 280 - 300 °C

Mold temperature: 80 - 120 °C