

# Durethan® AKV325H2.0

## PA66–GF25

25% Glass Reinforced, Blow Molding Grade, Extrusion, Heat Stabilized, Hydrolysis resistant

Print Date: 2024–10–14

| PROPERTIES                                   | TYPICAL DATA      | UNIT              | TEST METHOD     |
|--|-------------------|-------------------|-----------------|
| <b>RHEOLOGICAL PROPERTIES</b>                |                   |                   |                 |
|  | <b>DRY / COND</b> |                   |                 |
| Molding shrinkage (parallel)                 | 0.8 / *           | %                 | ISO 294–4       |
| Molding shrinkage (normal)                   | 0.8 / *           | %                 | ISO 294–4       |
| <b>MECHANICAL PROPERTIES</b>                 |                   |                   |                 |
|  | <b>DRY / COND</b> |                   |                 |
| Tensile modulus                              | 8200 / 5000       | MPa               | ISO 527–1/–2    |
| Stress at break                              | 150 / 100         | MPa               | ISO 527–1/–2    |
| Strain at break                              | 3.8 / 10          | %                 | ISO 527–1/–2    |
| Flexural modulus                             | 7200 / 4200       | MPa               | ISO 178         |
| Flexural strength                            | 240 / 140         | MPa               | ISO 178         |
| Tensile modulus (200°C)                      | 2670              | MPa               | ISO 527–1/–2    |
| Charpy impact strength (+23°C)               | 80 / 90           | kJ/m <sup>2</sup> | ISO 179/1eU     |
| Charpy impact strength (–30°C)               | 65 / 65           | kJ/m <sup>2</sup> | ISO 179/1eU     |
| Charpy notched impact strength (+23°C)       | <10 / 15          | kJ/m <sup>2</sup> | ISO 179/1eA     |
| Charpy notched impact strength (–30°C)       | <10 / <10         | kJ/m <sup>2</sup> | ISO 179/1eA     |
| Izod notched impact strength (+23°C)         | 10 / 15           | kJ/m <sup>2</sup> | ISO 180/1A      |
| <b>THERMAL PROPERTIES</b>                    |                   |                   |                 |
|  | <b>DRY / COND</b> |                   |                 |
| Melting temperature (10°C/min)               | 261 / *           | °C                | ISO 11357–1/–3  |
| Temp. of deflection under load (1.80 MPa)    | 236 / *           | °C                | ISO 75–1/–2     |
| Coeff. of linear therm. expansion (parallel) | 0.3 / *           | E–4/°C            | ISO 11359–1/–2  |
| Coeff. of linear therm. expansion (normal)   | 1 / *             | E–4/°C            | ISO 11359–1/–2  |
| Burning Behav. at 1.5 mm nom. thickn.        | HB / *            | class             | IEC 60695–11–10 |
| Thickness tested                             | 1.5 / *           | mm                | IEC 60695–11–10 |

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## Property Data

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| <i>PROPERTIES</i>                          | <i>TYPICAL DATA</i>      | <i>UNIT</i> | <i>TEST METHOD</i>   |
|--|--------------------------|-------------|----------------------|
| Glow Wire Flammability Index GWFI          | 600 / –                  | °C          | IEC 60695-2-12       |
| GWFI (Thickness (1) tested)                | 2 / –                    | mm          | IEC 60695-2-12       |
| <b><i>ELECTRICAL PROPERTIES</i></b>        | <b><i>DRY / COND</i></b> |             |                      |
| Relative permittivity (100Hz)              | 4.2 / –                  | –           | IEC 62631-2-1        |
| Relative permittivity (1 MHz)              | 3.8 / –                  | –           | IEC 62631-2-1        |
| Dissipation factor (100 Hz)                | 100 / –                  | E-4         | IEC 62631-2-1        |
| Dissipation factor (1 MHz)                 | 180 / –                  | E-4         | IEC 62631-2-1        |
| Volume resistivity                         | 1E13 / –                 | Ohm*m       | IEC 62631-3-1        |
| Surface resistivity                        | 1E14 / –                 | Ohm         | IEC 62631-3-2        |
| Electric strength                          | 32 / –                   | kV/mm       | IEC 60243-1          |
| Comparative tracking index                 | 425 / –                  | V           | IEC 60112            |
| <b><i>OTHER PROPERTIES</i></b>             | <b><i>DRY / COND</i></b> |             |                      |
| Water absorption                           | 6.6 / *                  | %           | Sim. to ISO 62       |
| Humidity absorption                        | 2 / *                    | %           | Sim. to ISO 62       |
| Density                                    | 1310 / –                 | kg/m³       | ISO 1183             |
| <b><i>MATERIAL SPECIFIC PROPERTIES</i></b> | <b><i>DRY / COND</i></b> |             |                      |
| Viscosity number                           | 210 / *                  | cm³/g       | ISO 307, 1157, 1628  |
| <b><i>PROCESSING RECOMMENDATIONS</i></b>   | <b><i>VALUE</i></b>      |             |                      |
| Drying temperature dry air dryer           | 80                       | °C          |                      |
| Drying time dry air dryer                  | 2-6                      | h           |                      |
| Residual moisture content                  | 0.03-0.12                | %           | acc. to Karl Fischer |
| Melt temperature (Tmin – Tmax)             | 280-300                  | °C          |                      |
| Mold temperature                           | 80-120                   | °C          |                      |

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