

# Durethan® AKV35HRH2.0

## PA66—GF35

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

| PROPERTIES                                   | TYPICAL DATA      | UNIT   | TEST METHOD     |
|----------------------------------------------|-------------------|--------|-----------------|
| <b>RHEOLOGICAL PROPERTIES</b>                |                   |        |                 |
|                                              | <b>DRY / COND</b> |        |                 |
| Molding shrinkage (parallel)                 | 0.38 / *          | %      | ISO 294-4       |
| Molding shrinkage (normal)                   | 1.05 / *          | %      | ISO 294-4       |
| <b>MECHANICAL PROPERTIES</b>                 |                   |        |                 |
|                                              | <b>DRY / COND</b> |        |                 |
| Tensile modulus                              | 11500 / 7800      | MPa    | ISO 527-1/-2    |
| Stress at break                              | 195 / 135         | MPa    | ISO 527-1/-2    |
| Strain at break                              | 3.1 / 6           | %      | ISO 527-1/-2    |
| Flexural modulus                             | 10700 / 7000      | MPa    | ISO 178         |
| Flexural strength                            | 305 / 210         | MPa    | ISO 178         |
| Charpy impact strength (+23°C)               | 85 / 85           | kJ/m²  | ISO 179/1eU     |
| Charpy impact strength (-30°C)               | 75 / 80           | kJ/m²  | ISO 179/1eU     |
| Charpy notched impact strength (+23°C)       | 13 / 20           | kJ/m²  | ISO 179/1eA     |
| Charpy notched impact strength (-30°C)       | <10 / <10         | kJ/m²  | ISO 179/1eA     |
| Izod notched impact strength (+23°C)         | <10 / <10         | kJ/m²  | ISO 180/1A      |
| <b>THERMAL PROPERTIES</b>                    |                   |        |                 |
|                                              | <b>DRY / COND</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) | 0.2 / *           | E-4/°C | ISO 11359-1/-2  |
| Coeff. of linear therm. expansion (normal)   | 0.8 / *           | 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 |



Durethan® AKV35HRH2.0

| PROPERTIES                        | TYPICAL DATA | UNIT | TEST METHOD    |
|-----------------------------------|--------------|------|----------------|
| Oxygen index                      | 26 / *       | %    | ISO 4589-1/-2  |
| Glow Wire Flammability Index GWFI | 650 / -      | °C   | IEC 60695-2-12 |
| GWFI (Thickness (1) tested)       | 2 / -        | mm   | IEC 60695-2-12 |

| ELECTRICAL PROPERTIES         | DRY / COND |       |               |
|-------------------------------|------------|-------|---------------|
| Relative permittivity (100Hz) | 3.9 / -    | -     | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 3.6 / -    | -     | IEC 62631-2-1 |
| Dissipation factor (100 Hz)   | 100 / -    | E-4   | IEC 62631-2-1 |
| Dissipation factor (1 MHz)    | 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 / -    | V     | IEC 60112     |

| OTHER PROPERTIES    | DRY / COND |       |                |
|---------------------|------------|-------|----------------|
| Water absorption    | 5.2 / *    | %     | Sim. to ISO 62 |
| Humidity absorption | 1.7 / *    | %     | Sim. to ISO 62 |
| Density             | 1410 / -   | kg/m³ | ISO 1183       |

| PROCESSING RECOMMENDATIONS       | VALUE   |    |  |
|----------------------------------|---------|----|--|
| Drying temperature dry air dryer | 80      | °C |  |
| Drying time dry air dryer        | 2-6     | h  |  |
| Melt temperature (Tmin – Tmax)   | 280-300 | °C |  |
| Mold temperature                 | 80-120  | °C |  |

