

# Durethan® ECOBKV35H3.0

## PA6—GF35

35% Glass Reinforced

### Sustainability

Mass balanced  
Recycled based

| PROPERTIES                                | TYPICAL DATA      | UNIT  | TEST METHOD    |
|-------------------------------------------|-------------------|-------|----------------|
| <b>RHEOLOGICAL PROPERTIES</b>             |                   |       |                |
|                                           | <b>DRY / COND</b> |       |                |
| Molding shrinkage (parallel)              | 0.24 / *          | %     | ISO 294-4      |
| Molding shrinkage (normal)                | 0.69 / *          | %     | ISO 294-4      |
| <b>MECHANICAL PROPERTIES</b>              |                   |       |                |
|                                           | <b>DRY / COND</b> |       |                |
| Tensile modulus                           | 11000 / 6800      | MPa   | ISO 527-1/-2   |
| Stress at break                           | 190 / 120         | MPa   | ISO 527-1/-2   |
| Strain at break                           | 3 / 5             | %     | ISO 527-1/-2   |
| Flexural modulus                          | 8600 / 5100       | MPa   | ISO 178        |
| Flexural strength                         | 280 / 170         | MPa   | ISO 178        |
| Charpy impact strength (+23°C)            | 85 / 95           | kJ/m² | ISO 179/1eU    |
| Charpy impact strength (-30°C)            | 75 / 75           | kJ/m² | ISO 179/1eU    |
| Charpy notched impact strength (+23°C)    | 15 / 22           | kJ/m² | ISO 179/1eA    |
| Charpy notched impact strength (-30°C)    | 10 / 10           | kJ/m² | ISO 179/1eA    |
| Izod notched impact strength (+23°C)      | 15 / 20           | kJ/m² | ISO 180/1A     |
| <b>THERMAL PROPERTIES</b>                 |                   |       |                |
|                                           | <b>DRY / COND</b> |       |                |
| Melting temperature (10°C/min)            | 222 / *           | °C    | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 205 / *           | °C    | ISO 75-1/-2    |
| Temp. of deflection under load (0.45 MPa) | 215 / *           | °C    | ISO 75-1/-2    |



Durethan® ECOBKV35H3.0

| PROPERTIES                                   | TYPICAL DATA | UNIT   | TEST METHOD     |
|----------------------------------------------|--------------|--------|-----------------|
| 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 |
| Burning Behav. at 3.0 mm nom. thickn.        | HB / *       | class  | IEC 60695-11-10 |
| Thickness tested                             | 3 / *        | mm     | IEC 60695-11-10 |
| Glow Wire Flammability Index GWFI            | 700 / -      | °C     | IEC 60695-2-12  |
| GWFI (Thickness (1) tested)                  | 0.75 / -     | mm     | IEC 60695-2-12  |
| Glow Wire Flammability Index GWFI            | 700 / -      | °C     | IEC 60695-2-12  |
| GWFI (Thickness (2) tested)                  | 1.5 / -      | mm     | IEC 60695-2-12  |
| Glow Wire Ignition Temperature GWIT          | 750 / -      | °C     | IEC 60695-2-13  |
| GWIT (Thickness (1) tested)                  | 0.75 / -     | mm     | IEC 60695-2-13  |
| Glow Wire Ignition Temperature GWIT          | 750 / -      | °C     | IEC 60695-2-13  |
| GWIT (Thickness (2) tested)                  | 1.5 / -      | mm     | IEC 60695-2-13  |

| ELECTRICAL PROPERTIES         | DRY / COND  |       |               |
|-------------------------------|-------------|-------|---------------|
| Relative permittivity (100Hz) | 4 / 15      | -     | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 4 / 5       | -     | IEC 62631-2-1 |
| Dissipation factor (100 Hz)   | 70 / 2000   | E-4   | IEC 62631-2-1 |
| Dissipation factor (1 MHz)    | 150 / 1200  | E-4   | IEC 62631-2-1 |
| Volume resistivity            | 1E13 / 1E10 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity           | * / 1E12    | Ohm   | IEC 62631-3-2 |
| Electric strength             | 40 / 35     | kV/mm | IEC 60243-1   |
| Comparative tracking index    | 525 / -     | V     | IEC 60112     |

| OTHER PROPERTIES    | DRY / COND |       |                |
|---------------------|------------|-------|----------------|
| Water absorption    | 7 / *      | %     | Sim. to ISO 62 |
| Humidity absorption | 2.1 / *    | %     | Sim. to ISO 62 |
| Density             | 1360 / -   | kg/m³ | ISO 1183       |



Durethan® ECOBKV35H3.0

| PROPERTIES                          | TYPICAL DATA | UNIT  | TEST METHOD          |
|-------------------------------------|--------------|-------|----------------------|
| <b>MATERIAL SPECIFIC PROPERTIES</b> |              |       |                      |
| Viscosity number                    | 140 / *      | cm³/g | ISO 307, 1157, 1628  |
| <b>PROCESSING RECOMMENDATIONS</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)      | 270–290      | °C    |                      |
| Mold temperature                    | 80–120       | °C    |                      |

