

# Durethan® ECOAKV35H2.0 SR1

## PA66—GF35

35% Glass Reinforced, Injection Molding, Heat Stabilized, Excellent Surface Properties,  
Recycled Content

### Sustainability

Mass balanced  
Recycled based

| PROPERTIES                                | TYPICAL DATA      | UNIT  | TEST METHOD    |
|-------------------------------------------|-------------------|-------|----------------|
| <b>RHEOLOGICAL PROPERTIES</b>             |                   |       |                |
|                                           | <b>DRY / COND</b> |       |                |
| Molding shrinkage (parallel)              | 0.32 / *          | %     | ISO 294-4      |
| Molding shrinkage (normal)                | 1 / *             | %     | ISO 294-4      |
| <b>MECHANICAL PROPERTIES</b>              |                   |       |                |
|                                           | <b>DRY / COND</b> |       |                |
| Tensile modulus                           | 11200 / 7500      | MPa   | ISO 527-1/-2   |
| Stress at break                           | 190 / 130         | MPa   | ISO 527-1/-2   |
| Strain at break                           | 3 / 5             | %     | ISO 527-1/-2   |
| Flexural modulus                          | 10500 / 6700      | MPa   | ISO 178        |
| Flexural strength                         | 295 / 200         | MPa   | ISO 178        |
| Charpy impact strength (+23°C)            | 80 / 90           | kJ/m² | ISO 179/1eU    |
| Charpy impact strength (-30°C)            | 70 / 75           | kJ/m² | ISO 179/1eU    |
| Charpy notched impact strength (+23°C)    | 12 / 20           | kJ/m² | ISO 179/1eA    |
| Charpy notched impact strength (-30°C)    | 10 / 10           | kJ/m² | ISO 179/1eA    |
| Izod notched impact strength (-40°C)      | <10 / <10         | kJ/m² | ISO 180/1A     |
| <b>THERMAL PROPERTIES</b>                 |                   |       |                |
|                                           | <b>DRY / COND</b> |       |                |
| Melting temperature (10°C/min)            | 263 / *           | °C    | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 250 / *           | °C    | ISO 75-1/-2    |
| Temp. of deflection under load (0.45 MPa) | 250 / *           | °C    | ISO 75-1/-2    |



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| 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)   | 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 |
| Oxygen index                                 | 23 / *       | %      | ISO 4589-1/-2   |
| Glow Wire Flammability Index GWFI            | 600 / -      | °C     | IEC 60695-2-12  |
| GWFI (Thickness (1) tested)                  | 2 / -        | mm     | IEC 60695-2-12  |

| ELECTRICAL PROPERTIES         | DRY / COND  |       |               |
|-------------------------------|-------------|-------|---------------|
| Relative permittivity (100Hz) | 4 / 10      | -     | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 4 / 4       | -     | IEC 62631-2-1 |
| Dissipation factor (100 Hz)   | 110 / 2100  | E-4   | IEC 62631-2-1 |
| Dissipation factor (1 MHz)    | 150 / 650   | E-4   | IEC 62631-2-1 |
| Volume resistivity            | 1E13 / 1E10 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity           | * / 1E13    | Ohm   | IEC 62631-3-2 |
| Electric strength             | 35 / 30     | kV/mm | IEC 60243-1   |

| OTHER PROPERTIES    | DRY / COND |       |                |
|---------------------|------------|-------|----------------|
| Water absorption    | 5 / *      | %     | Sim. to ISO 62 |
| Humidity absorption | 1.8 / *    | %     | 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  |                      |
| Residual moisture content        | 0.03-0.12 | %  | acc. to Karl Fischer |
| Melt temperature (Tmin – Tmax)   | 280-300   | °C |                      |
| Mold temperature                 | 80-120    | °C |                      |

