

# Durethan<sup>®</sup> ACF30XH2.0EF

## PA66—(GF+CF)30

Injection Molding, 30% Glass Fiber/Carbon Fiber, Heat Stabilized, Electrical Conductive, Improved flow

| PROPERTIES                                   | TYPICAL DATA      | UNIT   | TEST METHOD    |
|----------------------------------------------|-------------------|--------|----------------|
| <b>RHEOLOGICAL PROPERTIES</b>                |                   |        |                |
|                                              | <b>DRY / COND</b> |        |                |
| Molding shrinkage (parallel)                 | 0.3 / *           | %      | ISO 294-4      |
| Molding shrinkage (normal)                   | 0.8 / *           | %      | ISO 294-4      |
| <b>MECHANICAL PROPERTIES</b>                 |                   |        |                |
|                                              | <b>DRY / COND</b> |        |                |
| Tensile modulus                              | 12000 / 7400      | MPa    | ISO 527-1/-2   |
| Stress at break                              | 170 / 110         | MPa    | ISO 527-1/-2   |
| Strain at break                              | 2.5 / 4.5         | %      | ISO 527-1/-2   |
| Flexural modulus                             | 11400 / 7000      | MPa    | ISO 178        |
| Flexural strength                            | 255 / 170         | MPa    | ISO 178        |
| Charpy impact strength (+23°C)               | 60 / 65           | kJ/m²  | ISO 179/1eU    |
| Charpy impact strength (-30°C)               | 60 / 55           | kJ/m²  | ISO 179/1eU    |
| Charpy notched impact strength (+23°C)       | <10 / 15          | 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 / 15           | kJ/m²  | 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)    | 240 / *           | °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) | 0.1 / *           | E-4/°C | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion (normal)   | 1 / *             | E-4/°C | ISO 11359-1/-2 |
| <b>ELECTRICAL PROPERTIES</b>                 |                   |        |                |
|                                              | <b>DRY / COND</b> |        |                |



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| PROPERTIES         | TYPICAL DATA | UNIT  | TEST METHOD   |
|--------------------|--------------|-------|---------------|
| Volume resistivity | 1000 / –     | Ohm*m | IEC 62631–3–1 |

| OTHER PROPERTIES    | DRY / COND |       |                |
|---------------------|------------|-------|----------------|
| Water absorption    | 5 / *      | %     | Sim. to ISO 62 |
| Humidity absorption | 1.7 / *    | %     | Sim. to ISO 62 |
| Density             | 1300 / –   | 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        | 0.03–0.07 | %  | acc. to Karl Fischer |
| Melt temperature (Tmin – Tmax)   | 280–300   | °C |                      |
| Mold temperature                 | 80–120    | °C |                      |

