

## Stanyl® Diablo OCD2300

PA46-GF50

50% Glass Fiber Reinforced, Heat Stabilized

Print Date: 2025-10-04

| PROPERTIES                   | TYPICAL DATA | UNIT | TEST METHOD  |
|------------------------------|--------------|------|--------------|
| RHEOLOGICAL PROPERTIES       | DRY / COND   |      |              |
| Molding shrinkage (parallel) | 0.4 / *      | %    | ISO 294-4    |
| Molding shrinkage (normal)   | 0.9 / *      | %    | ISO 294-4    |
|                              |              |      |              |
| MECHANICAL PROPERTIES        | DRY / COND   |      |              |
| Tensile modulus              | 17000 / 8000 | MPa  | ISO 527-1/-2 |
| Tensile modulus (120°C)      | 6700 / –     | MPa  | ISO 527-1/-2 |
| Tensile modulus (160°C)      | 5800         | MPa  | ISO 527-1/-2 |
| Tensile modulus (180°C)      | 5300         | MPa  | ISO 527-1/-2 |
| Tensile modulus (200°C)      | 4300         | MPa  | ISO 527-1/-2 |
| Stress at break              | 240 / 135    | MPa  | ISO 527-1/-2 |
| Stress at break (120°C)      | 110 / -      | MPa  | ISO 527-1/-2 |
| Stress at break (160°C)      | 85           | MPa  | ISO 527-1/-2 |
| Stress at break (180°C)      | 75           | MPa  | ISO 527-1/-2 |
| Stress at break (200°C)      | 60           | MPa  | ISO 527-1/-2 |
| Strain at break              | 2.4 / 6.3    | %    | ISO 527-1/-2 |
| Strain at break (120°C)      | 7.5 / –      | %    | ISO 527-1/-2 |
| Strain at break (160°C)      | 8.5          | %    | ISO 527-1/-2 |
| Strain at break (180°C)      | 9            | %    | ISO 527-1/-2 |
| Strain at break (200°C)      | 9.5          | %    | ISO 527-1/-2 |
| Flexural modulus             | 17000 / 8000 | MPa  | ISO 178      |
| Flexural modulus (120°C)     | 6900         | MPa  | ISO 178      |
| Flexural modulus (160°C)     | 6100         | MPa  | ISO 178      |
| Flexural modulus (180°C)     | 5600         | MPa  | ISO 178      |

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## Property Data

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| PROPERTIES                                   | TYPICAL DATA | UNIT   | TEST METHOD    |
|--|--------------|--------|----------------|
| Flexural modulus (200°C)                     | 4500         | MPa    | ISO 178        |
| Flexural strength                            | 370 / 205    | MPa    | ISO 178        |
| Flexural strength (120°C)                    | 145          | MPa    | ISO 178        |
| Flexural strength (160°C)                    | 110          | MPa    | ISO 178        |
| Flexural strength (180°C)                    | 95           | MPa    | ISO 178        |
| Flexural strength (200°C)                    | 75           | MPa    | ISO 178        |
| Charpy impact strength (+23°C)               | 95 / 110     | kJ/m²  | ISO 179/1eU    |
| Charpy impact strength (-30°C)               | 80 / 95      | kJ/m²  | ISO 179/1eU    |
| Charpy notched impact strength (+23°C)       | 17 / 30      | kJ/m²  | ISO 179/1eA    |
| Charpy notched impact strength (-30°C)       | 14 / 14      | kJ/m²  | ISO 179/1eA    |
|  |              |        |                |
| THERMAL PROPERTIES                           | DRY / COND   |        |                |
| Melting temperature (10°C/min)               | 275 / *      | °C     | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa)    | 260 / *      | °C     | ISO 75-1/-2    |
| Temp. of deflection under load (0.45 MPa)    | 270 / *      | °C     | ISO 75-1/-2    |
| Coeff. of linear therm. expansion (parallel) | 0.25         | E-4/°C | ASTM D696      |
| Coeff. of linear therm. expansion (normal)   | 0.4          | E-4/°C | ASTM D696      |
|  |              |        |                |
| OTHER PROPERTIES                             | DRY / COND   |        |                |
| Humidity absorption                          | 2.2 / *      | %      | Sim. to ISO 62 |
| Density                                      | 1620 / –     | kg/m³  | ISO 1183       |

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