

# Stanyl® TE200F8

## PA46–GF40

40% Glass Reinforced, Heat Stabilized, for E&E applications

| PROPERTIES                    | TYPICAL DATA      | UNIT | TEST METHOD       |
|-------------------------------|-------------------|------|-------------------|
| <b>RHEOLOGICAL PROPERTIES</b> |                   |      |                   |
|                               | <b>DRY / COND</b> |      |                   |
| Molding shrinkage [parallel]  | 0.5 / *           | %    | Sim. to ISO 294–4 |
| Molding shrinkage [normal]    | 1.1 / *           | %    | Sim. to ISO 294–4 |
| <b>MECHANICAL PROPERTIES</b>  |                   |      |                   |
|                               | <b>DRY / COND</b> |      |                   |
| Tensile modulus               | 13000 / 8000      | MPa  | ISO 527–1/–2      |
| Tensile modulus (120°C)       | 6900 / –          | MPa  | ISO 527–1/–2      |
| Tensile modulus (160°C)       | 6100              | MPa  | ISO 527–1/–2      |
| Tensile modulus (180°C)       | 5600              | MPa  | ISO 527–1/–2      |
| Tensile modulus (200°C)       | 5200              | MPa  | ISO 527–1/–2      |
| Stress at break               | 235 / 140         | MPa  | ISO 527–1/–2      |
| Stress at break (120°C)       | 130 / –           | MPa  | ISO 527–1/–2      |
| Stress at break (160°C)       | 115               | MPa  | ISO 527–1/–2      |
| Stress at break (180°C)       | 105               | MPa  | ISO 527–1/–2      |
| Stress at break (200°C)       | 100               | MPa  | ISO 527–1/–2      |
| Strain at break               | 3.3 / 6           | %    | ISO 527–1/–2      |
| Strain at break (120°C)       | 6 / –             | %    | ISO 527–1/–2      |
| Strain at break (160°C)       | 7                 | %    | ISO 527–1/–2      |
| Strain at break (180°C)       | 7                 | %    | ISO 527–1/–2      |
| Strain at break (200°C)       | 8                 | %    | ISO 527–1/–2      |
| Flexural modulus              | 11800 / 7000      | MPa  | ISO 178           |
| Flexural modulus (120°C)      | 5800              | MPa  | ISO 178           |
| Flexural modulus (160°C)      | 5200              | MPa  | ISO 178           |
| Flexural strength             | 325 / 220         | MPa  | ISO 178           |

## Property Data

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| PROPERTIES                             | TYPICAL DATA | UNIT  | TEST METHOD |
|----------------------------------------|--------------|-------|-------------|
| Flexural strength (120°C)              | 170          | MPa   | ISO 178     |
| Flexural strength (160°C)              | 140          | MPa   | ISO 178     |
| Charpy impact strength (+23°C)         | 95 / 100     | kJ/m² | ISO 179/1eU |
| Charpy impact strength (−30°C)         | 75 / 85      | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 14 / 21      | kJ/m² | ISO 179/1eA |
| Charpy notched impact strength (−30°C) | 12 / 12      | kJ/m² | ISO 179/1eA |
| Izod notched impact strength (+23°C)   | 14 / 21      | kJ/m² | ISO 180/1A  |
| Izod notched impact strength (−40°C)   | 12 / 12      | kJ/m² | ISO 180/1A  |

| THERMAL PROPERTIES                           | DRY / COND |        |                        |
|----------------------------------------------|------------|--------|------------------------|
| Melting temperature (10°C/min)               | 295 / *    | °C     | ISO 11357-1/-3         |
| Temp. of deflection under load (1.80 MPa)    | 290 / *    | °C     | ISO 75-1/-2            |
| Temp. of deflection under load (0.45 MPa)    | 290 / *    | °C     | ISO 75-1/-2            |
| Coeff. of linear therm. expansion (parallel) | 0.25 / *   | E-4/°C | ISO 11359-1/-2         |
| Coeff. of linear therm. expansion (normal)   | 0.5 / *    | 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        |
| UL recognition                               | No / *     | —      | —                      |
| Thermal Index 5000 hrs                       | 159        | °C     | IEC 60216/ISO 527-1/-2 |

| ELECTRICAL PROPERTIES         | DRY / COND   |       |               |
|-------------------------------|--------------|-------|---------------|
| Volume resistivity            | >1E13 / 1E10 | Ohm*m | IEC 62631-3-1 |
| Electric strength             | 35 / 25      | kV/mm | IEC 60243-1   |
| Comparative tracking index    | 400 / —      | V     | IEC 60112     |
| Relative permittivity (100Hz) | 4.4 / 12     | —     | IEC 62631-2-1 |
| Relative permittivity (1 MHz) | 4 / 4.6      | —     | IEC 62631-2-1 |

| OTHER PROPERTIES | DRY / COND |
|------------------|------------|
|------------------|------------|

Property Data

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| PROPERTIES          | TYPICAL DATA | UNIT  | TEST METHOD    |
|---------------------|--------------|-------|----------------|
| Humidity absorption | 2.2 / *      | %     | Sim. to ISO 62 |
| Density             | 1510 / –     | kg/m³ | ISO 1183       |