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| PRODUCT CODE | TİSOPLEN C 20D03 R01 |
| PRODUCT DESCRIPTION | PPH, 20% GLASS FIBER REINFORCED, NATURAL |

| PHYSICAL | PROPERTIES | CONDITION | STANDARD | UNITS | VALUE |
|----------|-------------------|-----------------|-----------|-------------------|------------------|
| | DENSITY | - | ISO 1183 | g/cm ³ | 1.02-1.05 |
| | MOLDING SHRINKAGE | PARALLEL/NORMAL | ISO 294-4 | % | - |
| | MOISTURE CONTENT | - | ISO 15512 | % | - |

| MECHANICAL | PROPERTIES | CONDITION | STANDARD | UNITS | VALUE |
|------------|---------------------------------|-----------|-----------|-------------------|------------------|
| | YIELD STRENGTH | +23°C | ISO 527-2 | MPa | - |
| | TENSILE STRESS AT BREAK | +23°C | ISO 527-2 | MPa | 60-70 |
| | TENSILE STRAIN AT BREAK | +23°C | ISO 527-2 | % | >3 |
| | TENSILE MODULUS | +23°C | ISO 527-2 | MPa | 3000-4500 |
| | IZOD IMPACT STRENGTH, NOTCHED | +23°C | ISO 180/A | kJ/m ² | 7-10 |
| | IZOD IMPACT STRENGTH, NOTCHED | -30°C | ISO 180/A | kJ/m ² | - |
| | IZOD IMPACT STRENGTH, UNNOTCHED | +23°C | ISO 180/U | kJ/m ² | - |
| | IZOD IMPACT STRENGTH, UNNOTCHED | -30°C | ISO 180/U | kJ/m ² | - |

| THERMAL | PROPERTIES | CONDITION | STANDARD | UNITS | VALUE |
|--------------------|-----------------------------|----------------|-----------|-------|----------------|
| | VICAT SOFTENING TEMPERATURE | 50 N | ISO 306 | °C | - |
| | HEAT DEFLECTION TEMPERATURE | 0,45 MPa | ISO 75 | °C | - |
| | HEAT DEFLECTION TEMPERATURE | 1,80 MPa | ISO 75 | °C | 120 |
| | MELTING TEMPERATURE | 10 K/min | ISO 11357 | °C | 165-170 |
| BALL PRESSURE TEST | 120 °C | ISO 60695-10-2 | - | - | |

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| ELECTRICAL & FLAMMABILITY | PROPERTIES | CONDITION | STANDARD | UNITS | VALUE |
|---------------------------|------------------------------------|------------|-----------|--------|-------|
| | FLAME RATING | 0,75 mm | UL 94 | - | HB |
| | FLAME RATING | 1,6 mm | UL 94 | - | HB |
| | GLOW WIRE FLAMMABILITY INDEX | 2 mm | IEC 60695 | °C | - |
| | GLOW WIRE IGNITABILITY TEMPERATURE | 2 mm | IEC 60695 | °C | - |
| | COMPARATIVE TRACKING INDEX | Solution A | ISO 60112 | Volt | - |
| | VOLUME RESISTIVITY | - | IEC 60093 | Ohm.cm | 1E+15 |
| | SURFACE RESISTIVITY | - | IEC 60093 | Ohm | 1E+15 |

| INJECTION PROCESS | PROPERTIES | CONDITION | VALUE |
|-------------------|---------------------------|-----------|---------|
| | PREDRYING TEMPERATURE | °C | 80 |
| | PREDRYING TIME | hours | 1-2 |
| | MELTING TEMPERATURE | °C | 210-230 |
| | NOZZLE TEMPERATURE | °C | 230 |
| | PRE- 3 REGION TEMPERATURE | °C | 200-240 |
| | MID-2 REGION TEMPERATURE | °C | 200-240 |
| | AFT-1 REGION TEMPERATURE | °C | 150-180 |
| | MOLD TEMPERATURE | °C | 40-70 |
| | HOLD PRESSURE | MPa | 50-100 |

Data are based on dry conditions

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