

# TECHNYL® B 218 MX30 NATURAL

Polyamide 66/6 Copolymer  
Solvay Engineering Plastics

Message:

TECHNYL® B 218 MX30 Natural is a polyamide 66/6, reinforced with 30% of mineral filler, heat stabilized, for injection moulding.

| General Information                     |      |                                                           |                   |              |
|-----------------------------------------|------|-----------------------------------------------------------|-------------------|--------------|
| UL YellowCard                           |      | E44716-100397673                                          | E44716-235612     |              |
| Filler / Reinforcement                  |      | Mineral filler, 30% filler by weight                      |                   |              |
| Additive                                |      | heat stabilizer                                           |                   |              |
| Features                                |      | Heat Stabilized - Inorganic                               |                   |              |
|                                         |      | Low warpage                                               |                   |              |
|                                         |      | Excellent appearance                                      |                   |              |
| Uses                                    |      | Large household appliances and small household appliances |                   |              |
|                                         |      | Wire and cable applications                               |                   |              |
|                                         |      | Connector                                                 |                   |              |
| Agency Ratings                          |      | UL QMFZ2                                                  |                   |              |
| RoHS Compliance                         |      | RoHS compliance                                           |                   |              |
| Appearance                              |      | Natural color                                             |                   |              |
| Forms                                   |      | Particle                                                  |                   |              |
| Processing Method                       |      | Injection molding                                         |                   |              |
| Resin ID (ISO 1043)                     |      | PA66/6-MD30                                               |                   |              |
| Physical                                | Dry  | Conditioned                                               | Unit              | Test Method  |
| Density                                 | 1.38 | --                                                        | g/cm <sup>3</sup> | ISO 1183/A   |
| Water Absorption (23°C, 24 hr)          | 1.1  | --                                                        | %                 | ISO 62       |
| Mechanical                              | Dry  | Conditioned                                               | Unit              | Test Method  |
| Tensile Modulus (23°C)                  | 7400 | 4000                                                      | MPa               | ISO 527-2/1A |
| Tensile Stress (Break, 23°C)            | 80.0 | 50.0                                                      | MPa               | ISO 527-2/1A |
| Tensile Strain                          |      |                                                           |                   | ISO 527-2    |
| Yield, 23°C                             | 4.0  | 12                                                        | %                 | ISO 527-2    |
| Fracture, 23°C                          | 4.0  | --                                                        | %                 | ISO 527-2    |
| Flexural Modulus (23°C)                 | 6000 | 2600                                                      | MPa               | ISO 178      |
| Impact                                  | Dry  | Conditioned                                               | Unit              | Test Method  |
| Charpy Notched Impact Strength (23°C)   | 3.0  | 6.0                                                       | kJ/m <sup>2</sup> | ISO 179/1eA  |
| Charpy Unnotched Impact Strength (23°C) | 40   | 110                                                       | kJ/m <sup>2</sup> | ISO 179/1eU  |

|                                                         |           |             |                   |                |
|---------------------------------------------------------|-----------|-------------|-------------------|----------------|
| Notched Izod Impact<br>(23°C)                           | 3.0       | 5.0         | kJ/m <sup>2</sup> | ISO 180        |
| Thermal                                                 | Dry       | Conditioned | Unit              | Test Method    |
| Heat Deflection<br>Temperature (1.8 MPa,<br>Unannealed) | 180       | --          | °C                | ISO 75-2/Af    |
| Melting Temperature                                     | 242       | --          | °C                | ISO 11357-3    |
| Electrical                                              | Dry       | Conditioned | Unit              | Test Method    |
| Surface Resistivity                                     | 1.0E+14   | 1.0E+12     | ohms              | IEC 60093      |
| Volume Resistivity                                      | 6.0E+14   | 1.0E+14     | ohms·cm           | IEC 60093      |
| Dielectric Strength (2.00<br>mm)                        | 35        | 30          | kV/mm             | IEC 60243-1    |
| Dissipation Factor                                      | 0.020     | 0.080       |                   | IEC 60250      |
| Comparative Tracking<br>Index                           |           |             |                   | IEC 60112      |
| Solution a                                              | 550       | 550         | V                 | IEC 60112      |
| Solution B                                              | 500       | --          | V                 | IEC 60112      |
| Flammability                                            | Dry       | Conditioned | Unit              | Test Method    |
| Glow Wire Flammability<br>Index (1.6 mm)                | 650       | --          | °C                | IEC 60695-2-12 |
| Oxygen Index                                            | 26        | --          | %                 | ISO 4589-2     |
| Injection                                               | Dry       | Unit        |                   |                |
| Drying Temperature                                      | 80        |             | °C                |                |
| Suggested Max Moisture                                  | 0.20      |             | %                 |                |
| Rear Temperature                                        | 255 - 265 |             | °C                |                |
| Middle Temperature                                      | 260 - 270 |             | °C                |                |
| Front Temperature                                       | 270 - 280 |             | °C                |                |
| Mold Temperature                                        | 70 - 100  |             | °C                |                |
| Injection instructions                                  |           |             |                   |                |

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point mini -20°C. Recommended time 2-4hInjection Advice:

For reinforced polyamide, Solvay recommends the use of steel with a high content of Carbon and purified for polishing to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). For Mould Temperature, in the case of parts where the surface roughness is required we can recommend a temperature of 90°C to 120°C with an optimum at 105°C.

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