# TECHNYL eXten® D 219WFC V30 BLACK

Polyamide 610

Solvay Engineering Plastics

## Message:

TECHNYL eXten® D 219WFC V30 Black is a polyamide 6.10, reinforced with 30% of glass fibre, heat stabilized with organic stabilizers, for injection moulding. This grade offers lower water uptake, higher dimensional stability and enhanced chlorine resistance versus standard PA 6.6. It offers too an enhanced corrosion resistance, a reduction in lead levels versus standard metal solutions and an increase in ease of processing and part design freedom versus metal solutions and other plastics. It is used for cold and warm water plumbing components including, but not limited to, components in contact with drinking water systems globally where elevated levels of chlorine could be present.

| General Information | |
|---|---|
| Filler / Reinforcement | Glass fiber reinforced material, 30% filler by weight |
| Additive | heat stabilizer |
| Features | Drinking Water Contact Acceptable<br>Heat Stabilized - Organic<br>Good dimensional stability<br>Updatable resources<br>Good chemical resistance<br>Compliance of Food Exposure |
| Uses | Pump parts<br>Valve/valve components<br>Industrial application<br>Consumer goods application field |
| Agency Ratings | ACS DGSNS4 No. 2000/232<br>DVGW W270<br>EC 1907/2006 (REACH)<br>KTW Guidelines<br>NSF 61<br>NSF Not Rated<br>WRAS BS6920-1: 2000 and 2014 |
| RoHS Compliance | RoHS compliance |
| Appearance | Black |
| Forms | Particle |
| Processing Method | Injection molding |
| Resin ID (ISO 1043) | PA610-GF30 |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 1.31 | g/cm³ | ISO 1183/A |
| Water Absorption | | | ISO 62 |

| | | | |
|---|---|---|---|
| 23°C, 24 hr | 0.36 | % | ISO 62 |
| Saturated, 23°C | 2.4 | % | ISO 62 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus (23°C) | 9200 | MPa | ISO 527-2/1A |
| Tensile Stress (Break, 23°C) | 150 | MPa | ISO 527-2/1A |
| Tensile Strain (Break, 23°C) | 4.1 | % | ISO 527-2 |
| Flexural Modulus | | | |
| 23°C | 7200 | MPa | ASTM D790 |
| 23°C | 7700 | MPa | ISO 178 |
| Flexural Strength | | | |
| 23°C | 235 | MPa | ASTM D790 |
| 23°C | 250 | MPa | ISO 178 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength (23°C) | 11 | $kJ/m^2$ | ISO 179/1eA |
| Notched Izod Impact (23°C) | 12 | $kJ/m^2$ | ISO 180 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Heat Deflection Temperature (1.8 MPa, Unannealed) | 203 | °C | ISO 75-2/Af |
| Melting Temperature | 225 | °C | ISO 11357-3 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Surface Resistivity | 2.9E+15 | ohms | IEC 60093 |
| Volume Resistivity | 3.9E+15 | ohms·cm | IEC 60093 |
| Dielectric Strength (2.00 mm) | 27 | kV/mm | IEC 60243-1 |
| Relative Permittivity | 3.40 | | IEC 60250 |
| Comparative Tracking Index (Solution A) | 600 | V | IEC 60112 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating | | | UL 94 |
| 1.6 mm | HB | | UL 94 |
| 3.2 mm | HB | | UL 94 |
| Glow Wire Flammability Index (1.6 mm) | 700 | °C | IEC 60695-2-12 |
| **Injection** | **Nominal Value** | **Unit** | |
| Drying Temperature | 80 | °C | |
| Suggested Max Moisture | 0.20 | % | |
| Rear Temperature | 265 - 275 | °C | |
| Middle Temperature | 270 - 280 | °C | |
| Front Temperature | 275 - 285 | °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.
The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design



## Recommended distributors for this material

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