# Technyl® A 402 Natural FA

PA66 Solvay Engineering Plastics

## Product Texts

Unreinforced polyamide PA66, very high viscosity, for extrusion.

TECHNYL® A 402 NATURAL FA offers three main advantages: high impact resistance at low humidity levels, good rigidity, and excellent compression resistance.

This grade is particularly suitable for the moulding of plastic insulators for railway binding and for extrusion of plates and profiles.

Suitable for food contact applications (films, packaging, …).

This product is available in natural.

| Mechanical properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Tensile Modulus | 3100 / 1300 | MPa | ISO 527-1/-2 |
| Yield stress | 80 / 60 | MPa | ISO 527-1/-2 |
| Yield strain | 8 / 30 | % | ISO 527-1/-2 |
| Charpy impact strength (+23°C) | N / N | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 7 / 30 | kJ/m² | ISO 179/1eA |

| Thermal properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Melting temperature (10°C/min) | 263 / * | °C | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 75 / * | °C | ISO 75-1/-2 |
| Coeff. of linear therm. expansion, normal | 70 / * | E-6/K | ISO 11359-1/-2 |
| Oxygen index | 27 / * | % | ISO 4589-1/-2 |

| Electrical properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Dissipation factor, 1MHz | 200 / 1000 | E-4 | IEC 60250 |
| Volume resistivity | 1E13 / 1E10 | Ohm*m | IEC 60093 |
| Surface resistivity | * / 1E12 | Ohm | IEC 60093 |
| Electric strength | 27 / 26 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 600 / 600 | - | IEC 60112 |

| Other properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Water absorption | 1.5 / * | % | Sim. to ISO 62 |
| Density | 1140 / - | kg/m³ | ISO 1183 |

| Material specific properties | dry / cond | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Viscosity number | 438 / * | cm³/g | ISO 307, 1157, 1628 |

## Characteristics

**Processing**

Profile Extrusion, Other Extrusion

## Other text information

## Injection Molding

The material is supplied in airtight bags, ready for use. In the case that the virgin material has absorbed moisture, it must be dried to a final moisture content of less than 0,1% with a dehumidified air drying equipment at approx 80°C.

Recommended extrusion conditions :

Barrel temperatures :

- feed zone 240 - 250°C
- compression zone 2 40 - 260°C
- front zone 240 - 260°C

Draw - plate temperatures : 260 at 270°C

## Other extrusion

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Recommended extrusion conditions :

Barrel temperatures :

- feed zone 240 - 250°C
- compression zone 240 - 260 °C
- front zone 240 - 260°C

Draw - plate temperatures : 260 at 270°C

## Profile extrusion

The material is supplied in airtight bags, ready for use. In the case that the virgin material has absorbed moisture, it must be dried to a final moisture content of less than 0,1% with a dehumidified air drying equipment at approx 80°C.

Recommended extrusion conditions :

Barrel temperatures :

- feed zone 240 - 250°C
- compression zone 240 - 260 °C
- front zone 240 - 260°C

Draw - plate temperatures : 260 at 270°C