

# TECHNYL® A 222F NATURAL FA

Polyamide 66  
Solvay Engineering Plastics

Message:

TECHNYL® A 222F Natural FA is an unfilled polyamide 66, heat stabilized, medium viscosity, for injection moulding, fast crystallization, for short cycles. This grade offers a good combination between primary properties of the unreinforced polyamide 66 and processing properties leading to increased productivity. These performances are associated with excellent dimensional stability and good rigidity of moulded parts. It is designed to be used in food contact applications.

| General Information                   |                                  |                   |              |
|---------------------------------------|----------------------------------|-------------------|--------------|
| Features                              | Heat Stabilized - Inorganic      |                   |              |
|                                       | Fast molding cycle               |                   |              |
|                                       | Good liquidity                   |                   |              |
|                                       | Compliance of Food Exposure      |                   |              |
| Uses                                  | Valve/valve components           |                   |              |
|                                       | Industrial application           |                   |              |
|                                       | Consumer goods application field |                   |              |
| Agency Ratings                        | EC 1907/2006 (REACH)             |                   |              |
| RoHS Compliance                       | RoHS compliance                  |                   |              |
| Appearance                            | Black                            |                   |              |
|                                       | Natural color                    |                   |              |
| Forms                                 | Particle                         |                   |              |
| Processing Method                     | Injection molding                |                   |              |
| Resin ID (ISO 1043)                   | PA66                             |                   |              |
| Physical                              | Nominal Value                    | Unit              | Test Method  |
| Density                               | 1.14                             | g/cm <sup>3</sup> | ISO 1183/A   |
| Water Absorption (23°C, 24 hr)        | 1.2                              | %                 | ISO 62       |
| Mechanical                            | Nominal Value                    | Unit              | Test Method  |
| Tensile Modulus (23°C)                | 4000                             | MPa               | ISO 527-2/1A |
| Tensile Stress                        |                                  |                   | ISO 527-2/1A |
| Yield, 23°C                           | 95.0                             | MPa               | ISO 527-2/1A |
| Fracture, 23°C                        | 95.0                             | MPa               | ISO 527-2/1A |
| Tensile Strain (Break, 23°C)          | 9.0                              | %                 | ISO 527-2    |
| Impact                                | Nominal Value                    | Unit              | Test Method  |
| Charpy Notched Impact Strength (23°C) | 4.1                              | kJ/m <sup>2</sup> | ISO 179/1eA  |
| Thermal                               | Nominal Value                    | Unit              | Test Method  |
| Melting Temperature                   | 261                              | °C                | ISO 11357-3  |
| 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      | 280 - 285 | °C |
| Mold Temperature       | 60 - 80   | °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 2-4h

Injection Advice:

For unfilled polyamide, Solvay recommends the use of high alloy steel with a weak chromium content. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (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

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