

## UBESTA 3030JFX1

### Technical Product Information

UBESTA 3030JFX1 is a plasticized and weather stabilized Polyamide 12 suitable for pneumatic tube applications. Material complies with DIN 73378 – PA12 PHL. This material has following features:

- Excellent mechanical properties
- High weather resistance
- Excellent processability

| Basic Properties <sup>(1)</sup> |         | Method     | Unit              | Value   |
|---------------------------------|---------|------------|-------------------|---------|
| Polymer                         |         | -          | -                 | PA12    |
| Colour                          |         | -          | -                 | Natural |
| Density                         |         | ISO 1183-3 | g/cm <sup>3</sup> | 1,03    |
| Melting Point                   |         | ISO 11357  | °C                | 171     |
| MFI @ 235 °C, 2,16 Kg           |         | ISO 1133   | g/10 min          | 7       |
| Shore Hardness                  | D scale | ISO 868    | -                 | 70      |
| Rockwell Hardness               | R scale | ISO 2039-2 | -                 | 62      |

| Mechanical Properties <sup>(2)</sup>            |        | Method      | Unit  | Value |
|-------------------------------------------------|--------|-------------|-------|-------|
| Tensile stress at yield                         |        | ISO 527-1,2 | MPa   | 26    |
| Tensile strain at yield                         |        |             | %     | 24    |
| Tensile strain at break                         |        |             | %     | >150  |
| Flexural strength                               |        | ISO 178     | MPa   | 20    |
| Flexural modulus                                |        |             | MPa   | 400   |
| Charpy impact strength (notched) <sup>(3)</sup> | 23 °C  | ISO 179/1eA | kJ/m² | 120 P |
|                                                 | -40 °C |             | kJ/m² | 3 C   |

| Thermal Properties <sup>(2)</sup> |          | Method      | Unit                  | Value |
|-----------------------------------|----------|-------------|-----------------------|-------|
| Temp. of deflection under load    | 0,45 MPa | ISO 75-2    | °C                    | 80    |
|                                   | 1,80 MPa |             | °C                    | 45    |
| Coefficient of linear expansion   |          | ISO 11359-2 | x 10 <sup>-4</sup> /K | 1,9   |

Note: All tests carried dry as mould

(1) Measured on pellets

(2) Measured on injection-moulded specimens, based on ISO type

(3) P=partial break, C=complete break



## Processing conditions

|                  | Extruder |           |           |           |           |           | Die       |
|------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                  | Hopper   | Zone 1    | Zone 2    | Zone 3    | Zone 4    | Adaptor   |           |
| Temperature (°C) | 40 - 120 | 200 - 220 | 220 - 240 | 220 - 240 | 220 - 240 | 220 - 240 | 220 - 240 |

## Drying conditions

UBESTA is supplied dry (moisture content < 0,1%) and packed in high barrier films. However, as polyamide is a hygroscopic material, the user should take a special care of the possible moisture absorption once the bag or liner box has been opened. In case of moisture absorption, the material should be dried with dehumidified air at 80°C for more than 4 hours.

## Storage

Well-sealed packages could be stored in cool and dry conditions over long periods of time. Protect the packages from heat and direct sunlight to prevent possible damages.

