

Improved cast nylon variant with higher toughness and fatigue resistance

|                                  |                        |
|----------------------------------|------------------------|
| ISO                              | PA polyamide           |
| Shape                            | Sheet                  |
| Color                            | Blue                   |
| Temperature Range                | -30 and 125 °C         |
| <a href="#">tbl_temp_melting</a> | 215 °C                 |
| Density                          | 1150 kg/m <sup>3</sup> |
| Hardness                         | 85 Rockwell M          |
| Elongation at break              | 35 %                   |
| Tensile strength                 | 84 N/mm <sup>2</sup>   |
| Flame Resistance (UL 94)         | HB                     |

## Material information

Cast nylon with higher toughness, ductility and fatigue resistance than standard Ertalon 6 PLA.

## Usage examples

Excellent for the manufacture of various gears and pinions  
Measurement tolerance 2768-mK

## Item Overview

| Item Code | Item Name                      | Width (mm) | Length (mm) |
|-----------|--------------------------------|------------|-------------|
| 63700100  | PA Nylatron MC 901 blauw 10 mm |            |             |
| 63700120  | PA Nylatron MC 901 blauw 12 mm |            |             |
| 63700160  | PA Nylatron MC 901 blauw 16 mm |            |             |
| 63700200  | PA Nylatron MC 901 blauw 20 mm |            |             |
| 63700300  | PA Nylatron MC 901 blauw 30 mm |            |             |
| 63700400  | PA Nylatron MC 901 blauw 40 mm |            |             |
| 63700500  | PA Nylatron MC 901 blauw 50 mm |            |             |

## Water absorption

The extent to which the product absorbs water when tested for 24 hours in water at 23 degrees in accordance with ISO 63.

### Immersion Saturation

0,720 % 6,600 %

## Thermal properties

[tbl\\_thermal\\_explainer](#)

[tbl\\_thermische\\_geleiding](#) [tbl\\_lin\\_uitzet\\_2360](#) [tbl\\_lin\\_uitzet\\_23100](#) [tbl\\_temp\\_deflection\\_load](#)

0,290 W/(K.m) 80 x 10-6 m/(m.K) 90 x 10-6 m/(m.K) 80 °C



## Mechanical properties

[tbl\\_mechanical\\_explainer](#)

| <a href="#">tbl_tension_norm</a> | <a href="#">tbl_tension_stress_yield</a> | <a href="#">tbl_tension_strain_yield</a> | <a href="#">tbl_tension_strain_break</a> | <a href="#">tbl_modulus_elasticity</a> |
|----------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|----------------------------------------|
| ISO 527-1/-2                     | 84 MPa                                   | 5 %                                      | 35 %                                     | 3.300 MPa                              |

## Impact tests

[tbl\\_charpy\\_izod\\_explainer](#)

| <a href="#">tbl_charpy_impact</a> | <a href="#">tbl_charpy_unnotched</a> | <a href="#">tbl_charpy_notched</a> | <a href="#">tbl_izod_impact</a> | <a href="#">tbl_izod_impact_notched</a> |
|-----------------------------------|--------------------------------------|------------------------------------|---------------------------------|-----------------------------------------|
| ISO 179-1                         | KJ/m <sup>2</sup>                    | 3 KJ/m <sup>2</sup>                | ISO 179-1                       | 0                                       |

## Dynamische Coefficient of Friction

[tbl\\_dcf\\_explainer](#)

| <a href="#">tbl_dcf</a> | <a href="#">tbl_dcf_min</a> | <a href="#">tbl_dcf_max</a> | <a href="#">tbl_dcf_wear</a> |
|-------------------------|-----------------------------|-----------------------------|------------------------------|
| ISO 179-1 0,400         | 0,600                       | 12 µm/km                    |                              |

## Electrical properties

Tests related to the electrical resistivity and conductivity of the material.

| Electric strength    | Volume resistance        | Surface resistance        |
|----------------------|--------------------------|---------------------------|
| IEC 60243-1 25 kV/mm | IEC 60093 >10E 14 Ohm.cm | IEC 60093 >10E 13 Ohm/sq. |

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