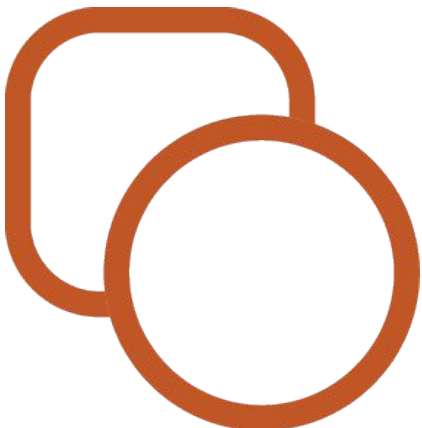


ACCESS is a fine powder based on Polypropylene resin especially formulated to function on rapid prototyping systems by laser sintering (SLS, LS) or radiation (IRS, MJF). It enables to obtain productions of models and functional parts in polypropylene with long cycle of life and excellent chemical resistance.

| | | |
|--|---|---|
| <h1>ACCESS</h1> <h2>PP30</h2>  | <p>Typical features :</p> <p>POLYPROPYLENE</p> <p>30% Elongation break</p> <p>Similar refresh rate to PA12</p> <p>Alternative to Polyamide</p> | <p>Applications examples :</p> <ul style="list-style-type: none"> → Ductility → Living hinges → Low friction elements → Chemical resistant → Low density parts |
| | <p>Refresh rate :</p> <h1>50 %</h1> <p>The process ability of the powder on your systems is optimized ; thus all the powder of a building can be re-used after sifting. The refreshing factor for regeneration is lower than the usual rates giving a real economic advantage.</p> | <p>Key Points :</p> <h1>Price per cm³</h1> |



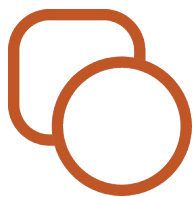
General Properties :

| | | |
|--|--|--|
| <p>Chemical Nature of the Preparation :</p> <p>Physical State (20°C) and Color :</p> | <p>POLYPROPYLENE, Presence of additives</p> <p>Solid (powder) Natural Grade : White Translucid</p> | |
| <p>Average Particle Size :</p> <p>Grain Size :</p> <p>Grain Size :</p> <p>Grain Size :</p> <p>Powder packed Density 23 ° C :</p> <p>Part Density :</p> <p>23°C Moisture absorption 24 hrs :</p> | <p>Diffraction laser :</p> <p>D10</p> <p>D50</p> <p>D90</p> <p>ISO 60</p> <p>ISO 61</p> <p>ASTM D570</p> | <p>NC</p> <p>60 < _ <70 μm</p> <p>NC</p> <p>0,33 +/- 0,03 g/cm³</p> <p>0,89 +/- 0,05 g/cm³</p> <p>NC</p> |

Mechanical Properties :

| | | |
|---|--|---|
| <p>Young Modulus*</p> <p>Flexural Modulus*</p> <p>Tensile strength (Average XY)*</p> <p>Tensile strength (Average Z)*</p> <p>Elongation at break (Average XY)*</p> <p>Elongation at break (Average Z)*</p> <p>Charpy (unnotched) – Impact strength*</p> <p><i>*statistics after several cycles</i></p> | <p>ISO 527</p> <p>ISO 178</p> <p>ISO 527</p> <p>ISO 527</p> <p>ISO 527</p> <p>ISO 527</p> <p>ISO 179 (20°C)</p> | <p>1400 MPa</p> <p>1250 MPa</p> <p>28 +/- 1 MPa</p> <p>28 +/- 1 MPa</p> <p>30 +/- 5 %</p> <p>10 +/- 5 %</p> <p>29 +/- 5 dry/Cond.24 hrs KJ/m²</p> <p>50 cond. 24 hrs</p> |
|---|--|---|

The mechanical properties can vary according to the positioning of the tensile bars, operating conditions and exposure parameters of the systems used. These data rest on the current state of our knowledge. They do not give the exact characteristics of material and does not represent a guarantee.



Thermal Properties :

| | | |
|---|------------------------------------|--------------------------|
| T°f Melting Point : | DSC | 132 <_ < 140 °C |
| Flammability – Fire Classification UL-94 following ASTM D618(ISO 921) with a barrel 125 x 13 x 13 mm | UL94 vertical & Horizontal test | NC Out Classification |

Electrical Properties :

According to the value reach in CEI 93 the material is considered as : NC

| | | |
|--|--------|----|
| Volume resistivity | CEI 93 | NC |
| Horizontal surface Voluminal resistivity | CEI 93 | NC |
| Vertical surface Voluminal resistivity | CEI 93 | NC |

Surface Finish :

| | | |
|---|----------------|------------------|
| Natural Coloration : | Visual | WHITE Translucid |
| Shore D Hardness : | ISO 868 (20°C) | 72 Shore D |
| Surface Ra/ Upper Facing processed & blasting : | ISO 4287 | NC |
| Surface Ra/ Upper Facing after Finishing : | ISO 4287 | NC |

Chemical Properties :

Matrix in Polypropylene with a good chemical resistance to alkaline, hydrocarbons, oils, gasoline's, gas oil and solvents.
Attack by the acids. Sealing of wall starting from 2 mm thickness.

| | |
|--------------------------------|---|
| SOLUBILITY : WATER : | Insoluble in Water Soluble in Mineral acids, Phenols Insoluble in most organic solvents Insoluble in : Chlorinated solvents ,Alkaline conditions |
| Solvents : | |
| Odor : | Odorless |
| pH: | Not soluble |
| Melting Point / Range : | 120 °C < T < 170 °C |
| Decomposition Temperature : | Polymer : > 380 °C |
| Explosive Properties : | For solids not relevant for Classification and labelling. |
| Explosive Limits : | For solids not relevant for Classification and labelling. |

Data Sheet_ACCESS PP30_ Dec 2020.