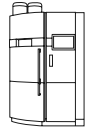







# COMPATIBILITY OF POLYMER MATERIALS AND SYSTEMS

Product name  
Layer thickness






**FORMIGA P 110 *Velocis***

**Polyamide 12**

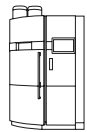
-  PA 2200® CarbonReduced  
60 | 100 | 120 µm
-  PA 3200 GF  
100 µm
-  PA 2200®  
60 | 100 | 120 µm
-  Alumide®  
100 µm
-  PA 2201  
100 µm

**Polyamide 11**

-  PA 1101 ClimateNeutral  
100 µm
-  PA 1101  
100 µm
-  PA 1102 black  
100 µm

**Thermoplastic elastomer**

-  EOS TPU 1301  
100 µm











**FORMIGA P 110 *FDR***






**Polyamide 11**

-  PA 1101 ClimateNeutral  
40 µm
-  PA 1101  
40 µm

**Polyamide 12**

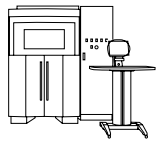
-  PA 2200® CarbonReduced  
60 | 100 | 120  
150 | 180 µm
-  PrimePart FR  
(PA 2241 FR)  
100 | 150 µm
-  PA 2200®  
60 | 100 | 120  
150 | 180 µm
-  PA 3200 GF  
120 | 150 µm
-  PA 2201  
100 | 120 µm
-  PA 640 GSL  
120 µm
-  PA 2210 FR  
150 µm
-  Alumide®  
120 | 150 µm

**Polyamide 11**

-  PA 1101 ClimateNeutral  
120 µm
-  PA 1101  
120 µm
-  PA 1102 black  
120 µm
-  HP 11-30  
120 µm
-  FR-106  
120 µm



**Thermoplastic elastomer**

-  EOS TPU 1301  
120 µm










**EOS P 396**

**Polyamide 12**




-  PA 2200® CarbonReduced  
120 µm
-  PA 2200®  
120 µm

**EOS P 500**

**Polyamide 12**

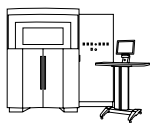
-  PA 2200® CarbonReduced  
60 | 100 | 120  
150 | 180 µm
-  PrimePart FR®  
(PA 2241 FR)  
100 | 150 µm
-  PA 2200®  
60 | 100 | 120  
150 | 180 µm
-  PA 3200 GF  
120 | 150 µm
-  PA 2201  
100 | 120 | 150 µm
-  Alumide®  
120 | 150 µm
-  PA 2210 FR  
150 µm

**Polyamide 11**

-  PA 1101 ClimateNeutral  
120 µm
-  PA 1101  
120 µm
-  PA 1102 black  
120 µm

**Thermoplastic elastomer**

-  EOS TPU 1301  
120 µm



**EOS P 770**



**Polyaryletherketon**

-  HT-23  
120 µm
-  PEKK 100  
100 µm

**Further Materials  
Available on Request**

# EOS POLYMER MATERIALS

## TECHNICAL DATA

| Product class  | Product name              | Colour of laser-sintered parts | Main properties  | Typical applications   |
|--|---------------------------|--------------------------------|--|--|
| Polyamide 12  | PA 2202®<br>CarbonReduced | white                          | <ul style="list-style-type: none"> <li>→ Material properties equivalent to PA 2200</li> <li>→ Reduced carbon footprint due to optimized production process</li> </ul>  | Functional parts   |
|  | PA 2200®                  | white                          | <ul style="list-style-type: none"> <li>→ Multipurpose material</li> <li>→ Balanced property profile</li> </ul>   | Functional parts   |
| Polyamide 12,<br>glass bead filled   | PA 3200 GF                | whitish                        | <ul style="list-style-type: none"> <li>→ High stiffness</li> <li>→ Wear resistance</li> <li>→ Improved temperature performance</li> </ul>  | Stiff housings<br>Parts with requirements on wear and abrasion<br>Parts used under elevated thermal conditions |
| Polyamide 12,<br>aluminium filled  | Alumide®                  | metallic grey                  | <ul style="list-style-type: none"> <li>→ Easy post-processing, good machinability</li> <li>→ High temperature performance</li> <li>→ Thermal conductivity (limited)</li> <li>→ High stiffness</li> </ul>                   | Applications with metallic finish<br>Parts requiring machining<br>Parts with thermal loads                     |
| Polyamide 11  | PA 1101<br>ClimateNeutral | natural                        | <ul style="list-style-type: none"> <li>→ Material properties equivalent to PA 1101</li> <li>→ Climate neutrality through optimization of the production processes and investment in climate protection projects</li> </ul> | Functional parts requiring impact resistance<br>Parts with functional elements like film hinges                |
|  | PA 1101                   | natural                        | <ul style="list-style-type: none"> <li>→ High ductility and impact resistance</li> <li>→ Otherwise balanced property profile (similar to PA 2200)</li> <li>→ From renewable sources</li> </ul>                             | Functional parts requiring impact resistance<br>Parts with functional elements like film hinges                |
|  | PA 1102 black             | black                          | <ul style="list-style-type: none"> <li>→ Similar properties as PA 1101</li> <li>→ Mass-coloured, parts remain black even under abrasive wear</li> </ul>  | Similar to typical applications for PA 1101  |

### For special applications

|  |                               |         |  |   |
|--|-------------------------------|---------|--|---|
| Polyamide 12   | PA 2201                       | natural | <ul style="list-style-type: none"> <li>→ Multipurpose material</li> <li>→ Material primarily for use in North America</li> </ul>   | Functional parts  |
| Polyamide 12,<br>flame retardant                       | PA 2210 FR                    | white   | <ul style="list-style-type: none"> <li>→ Flame retardancy</li> <li>→ Halogen-free material</li> </ul>  | Aerospace<br>Electric and electronics   |
|  | PrimePart® FR<br>(PA 2241 FR) | white   | <ul style="list-style-type: none"> <li>→ Economic flame-retardant material</li> <li>→ Material certificates available (flammability)</li> </ul>  | Aerospace   |
| Polyetherketone-<br>ketone, carbon fiber<br>reinforced | HT-23                         | grey    | <ul style="list-style-type: none"> <li>→ Extreme strength and stiffness</li> <li>→ Thermal and limited electrical conductivity</li> <li>→ Inherently flame retardant (FAR 25.853, DIN EN 45545-2 R1 &amp; R24)</li> <li>→ Very high reusability</li> </ul> | Light and stiff functional parts<br>Aerospace & mobility interior<br>Metal replacement  |
| Polyetherketone-<br>ketone                             | PEKK 100                      | beige   | <ul style="list-style-type: none"> <li>→ Extreme strength and high toughness even at use temperature of 80-180°C</li> <li>→ High dielectric strength, fully insulative</li> <li>→ Inherently flame retardant</li> <li>→ Very high reusability</li> </ul>   | Industrial & automotive parts with high oil and chemical resistant even at elevated temperatures, replacement of PA6/PA66-Compounds for small series injection moulding, Electrical & Electronics., aerospace parts, metal replacement. |
| Thermoplastic<br>Elastomer                             | EOS TPU 1301                  | white   | <ul style="list-style-type: none"> <li>→ Great resilience after deformation, good hydrolysis resistance, high UV-stability</li> </ul>  | Protective gear, soles<br>Damping elements<br>Gaskets, bellows, pipes   |

Detailed information: [www.eos.info/material-p](http://www.eos.info/material-p)