

# EOS Materials Plastic

## Technical Data

| Product class                   | Product name           | Colour of lasersintered parts | Main properties  | Typical applications   |
|---------------------------------|------------------------|-------------------------------|--|--|
| Polyamide 12                    | PA 2200 CarbonReduced  | white                         | → Material properties equivalent to PA 2200<br>→ Reduced carbon footprint due to optimized production process  | Functional parts   |
|                                 | PA 2200                | white                         | → Multipurpose material<br>→ Balanced property profile   | Functional parts   |
| Polyamide 12, glass bead filled | PA 3200 GF             | whitish                       | → High stiffness<br>→ Wear resistance<br>→ Improved temperature performance  | Stiff housings<br>Parts with requirements on wear and abrasion<br>Parts used under elevated thermal conditions |
| Polyamide 12, aluminium filled  | Alumide®               | metallic grey                 | → Easy post-processing, good machinability<br>→ High temperature performance<br>→ Thermal conductivity (limited)<br>→ High stiffness                               | Applications with metallic finish<br>Parts requiring machining<br>Parts with thermal loads                     |
| Polyamide 11                    | PA 1101 ClimateNeutral | natural                       | → Material properties equivalent to PA 1101<br>→ Climate neutrality through optimization of the production processes and investment in climate protection projects | Functional parts requiring impact resistance<br>Parts with functional elements like film hinges                |
|                                 | PA 1101                | natural                       | → High ductility and impact resistance<br>→ Otherwise balanced property profile (similar to PA 2200)<br>→ From renewable sources                                   | Functional parts requiring impact resistance<br>Parts with functional elements like film hinges                |
|                                 | PA 1102 black          | black                         | → Similar properties as PA 1101<br>→ Mass-coloured, parts remain black even under abrasive wear  | Similar to typical applications for PA 1101  |

### For special applications

|  |                            |         |  |   |
|--|----------------------------|---------|--|---|
| Polyamide 12                                   | PA 2201                    | natural | → Multipurpose material<br>→ Material primarily for use in North America   | Functional parts  |
| Polyamide 12, flame retardant                  | PA 2210 FR                 | white   | → Flame retardancy<br>→ Halogen-free material  | Aerospace<br>Electric and electronics   |
|  | PrimePart® FR (PA 2241 FR) | white   | → Economic flame-retardant material<br>→ Material certificates available (flammability)  | Aerospace   |
| Polyetherketoneketone, carbon fiber reinforced | HT-23                      | grey    | → Extreme strength and stiffness<br>→ Thermal and limited electrical conductivity<br>→ Inherently flame retardant (FAR 25.853, DIN EN 45545-2 R1 & R24)<br>→ Very high reusability   | Light and stiff functional parts<br>Aerospace & mobility interior<br>Metal replacement  |
| Polyetherketoneketone                          | PEKK-100                   | beige   | → Extreme strength and high toughness even at use temperature of 80-180°C<br>→ High dielectric strength, fully insulative<br>→ Inherently flame retardant<br>→ Very high reusability | 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 Elastomer                        | EOS TPU 1301               | white   | → Great resilience after deformation, good hydrolysis resistance, high UV-stability  | Protective gear, soles<br>Damping elements<br>Gaskets, bellows, pipes   |

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

# Compatibility of Polymer Materials and Systems

Product name  
Layer thickness



## Polyamide 12

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

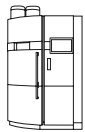
## Polyamide 11

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

## Thermoplastic elastomer

- EOS TPU 1301 100 µm

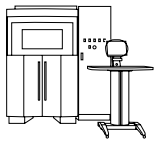
FORMIGA P 110 *Velocis*



## Polyamide 11

- PA 1101 ClimateNeutral 40 µm
- PA 1101 40 µm

FORMIGA P 110 *FDR*



## Polyamide 12

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

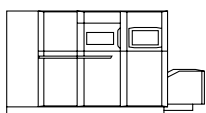
## Polyamide 11

- 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

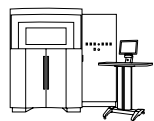
EOS P 396



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

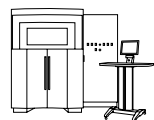
## Polyamide 11

- 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 100 120 µm

EOS P 810