

# EOS Materials Plastic

| Product class                         | Product name               | Colour of laser-sintered parts | Main properties  | Typical applications  |
|---------------------------------------|----------------------------|--------------------------------|--|---|
| Polyamide 12                          | PA 2200                    | white                          | <ul style="list-style-type: none"> <li>Multipurpose material</li> <li>Balanced property profile</li> </ul>   | <ul style="list-style-type: none"> <li>Functional parts</li> </ul>  |
|                                       | PrimePart® PLUS (PA 2221)  | natural                        | <ul style="list-style-type: none"> <li>Economical multipurpose material</li> <li>Balanced property profile</li> <li>Variety of certificates available (Biocompatibility, Food contact)</li> </ul>  | <ul style="list-style-type: none"> <li>Functional parts</li> </ul>  |
|                                       | PA 2202 black              | anthracite black               | <ul style="list-style-type: none"> <li>Balanced property profile</li> <li>Pigmented throughout</li> </ul>  | <ul style="list-style-type: none"> <li>Functional parts in anthracite black colour</li> </ul>   |
| Polyamide 12, 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>  | <ul style="list-style-type: none"> <li>Stiff housings</li> <li>Parts with requirements on wear and abrasion</li> <li>Parts used under elevated thermal conditions</li> </ul>                      |
| Polyamide 12, 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>   | <ul style="list-style-type: none"> <li>Applications with metallic finish</li> <li>Parts requiring machining</li> <li>Parts with thermal loads</li> </ul>  |
| Polyamide 12, carbon fibre reinforced | CarbonMide®                | anthracite black               | <ul style="list-style-type: none"> <li>Extreme strength and stiffness</li> <li>Thermal and limited electrical conductivity</li> <li>Best strength/weight ratio</li> </ul>  | <ul style="list-style-type: none"> <li>Light and stiff functional parts</li> <li>Metal replacement</li> </ul>   |
| Polyamide 11                          | 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>   | <ul style="list-style-type: none"> <li>Functional parts requiring impact resistance</li> <li>Parts with functional elements like film hinges</li> </ul>   |
| 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>   | <ul style="list-style-type: none"> <li>Functional parts</li> </ul>  |
|                                       | PA 2105                    | light beige                    | <ul style="list-style-type: none"> <li>Highest dimensional accuracy</li> <li>High surface quality and detail resolution</li> </ul>   | <ul style="list-style-type: none"> <li>Dental</li> </ul>  |
| Polyamide 12, flame retardant         | PA 2210 FR                 | white                          | <ul style="list-style-type: none"> <li>Flame retardancy</li> <li>Halogen-free</li> </ul>   | <ul style="list-style-type: none"> <li>Aerospace</li> <li>Electric and electronics</li> </ul>   |
|                                       | PrimePart® FR (PA 2241 FR) | white                          | <ul style="list-style-type: none"> <li>Economic flame-retardant material</li> <li>Material certificates available (flammability)</li> </ul>  | <ul style="list-style-type: none"> <li>Aerospace</li> </ul>   |
| TPE-A Polyetheramide-Block-Copolymer  | PrimePart® ST (PEBA 2301)  | white                          | <ul style="list-style-type: none"> <li>Rubber-like flexibility (Shore D ≈ 35)</li> <li>No infiltration necessary</li> </ul>  | <ul style="list-style-type: none"> <li>Damping devices, bumpers / cushions, gaskets / gasket seals, shoe sole elements</li> </ul>   |
| Polystyrene                           | PrimeCast® 101             | grey                           | <ul style="list-style-type: none"> <li>High dimensional accuracy</li> <li>Low residual ash content (when burned)</li> </ul>  | <ul style="list-style-type: none"> <li>Master patterns for investment casting</li> <li>Master patterns for vacuum casting</li> <li>Economical visual prototypes</li> </ul>                        |
| Polyaryletherketone                   | EOS PEEK HP3               | beige-brown                    | <ul style="list-style-type: none"> <li>High-performance material</li> <li>Excellent temperature performance, strength, stiffness and chemical resistance</li> <li>Excellent wear resistance</li> <li>Inherently flame retardant</li> <li>Biocompatibility and sterilizability</li> </ul> | <ul style="list-style-type: none"> <li>Metal replacement</li> <li>Aerospace</li> <li>Automotive and motorsports</li> <li>Electric and electronics</li> <li>Medical</li> <li>Industrial</li> </ul> |

# EOS Materials Metal

| Product class   | Product name           | Material type*  | Typical applications   |
|-----------------|------------------------|---|--|
| Maraging steel  | EOS MaragingSteel MS1  | 18 Mar 300 / 1.2709   | Series injection molding tools; mechanical parts   |
| Stainless steel | EOS StainlessSteel GP1 | Stainless steel<br>17-4 / 1.4542                              | Functional prototypes and series-production parts;<br>mechanical engineering and medical technology  |
|                 | EOS StainlessSteel PH1 | Hardenable stainless<br>steel 15-5 / 1.4540                   | Functional prototypes and series-production parts;<br>mechanical engineering and medical technology  |
| Nickel alloy    | EOS NickelAlloy IN718  | Inconel™ 718, UNS<br>N07718, AMS 5662,<br>mat. # 2.4668       | Functional prototypes and series-production parts;<br>high-temperature turbine components  |
|                 | EOS NickelAlloy IN625  | Inconel™ 625, UNS<br>N06625, AMS 5666F,<br>mat. # 2.4856 etc. | Functional prototypes and series-production parts;<br>high-temperature turbine components  |
|                 | EOS NickelAlloy HX     | UNS N06002  | Components with severe thermal conditions and high risk of oxidation,<br>e.g. combustion chambers, burner components, fans, roller hearths<br>and support members in industrial furnaces |
| Cobalt chrome   | EOS CobaltChrome MP1   | CoCrMo super alloy,<br>UNS R31538, ASTM F75                   | Functional prototypes, series-production parts,<br>mechanical engineering, medical technology, dental  |
|                 | EOS CobaltChrome SP2   | CoCrMo super alloy  | Dental restorations (series-production)  |
| Titanium        | EOS Titanium Ti64      | Ti6Al4V light metal   | Functional prototypes and series-production parts; aerospace, motorsports etc.   |
| Aluminium       | EOS Aluminium AlSi10Mg | AlSi10Mg light metal  | Functional prototypes and series-production parts; mechanical engineering, motorsports etc.  |

\*Material in accordance with respective standard