

# 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>
	PA 1102 black	black	<ul style="list-style-type: none"> <li>Similar to typical applications for PA 1101</li> <li>Additionally: black, mass-coloured applications, which remain black even under abrasive wear / scratching</li> </ul>	<ul style="list-style-type: none"> <li>Similar to typical applications for PA 1101</li> <li>Additionally: black, integrated colour</li> <li>Through mass-colourisation suitable for scratch resistant parts</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 material</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>Potentially biocompatible (component testing required) and sterilisable</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	<b>EOS MaragingSteel MS1</b>	18 Mar 300 / 1.2709	Series injection molding tools; mechanical parts
Stainless steel	<b>EOS StainlessSteel GP1</b>	Stainless steel 17-4 / 1.4542	Functional prototypes and series-production parts; mechanical engineering and medical technology
	<b>EOS StainlessSteel PH1</b>	Hardenable stainless steel 15-5 / 1.4540	Functional prototypes and series-production parts; mechanical engineering and medical technology
	<b>EOS stainlessSteel 316L</b>	1.4404 / UNS S31673	Lifestyle: jewellery, functional elements in yachts, spectacle frames, etc. Aerospace: supports, brackets, etc. Medical: functional prototypes and series-production parts in e.g. endoscopy and orthopedics
	<b>EOS StainlessSteel CX</b>	Tooling grade steel	Manufacturing of injection moulding tools for medical products or products from corrosive plastics
	<b>EOS StainlessSteel 17-4PH</b>	Stainless steel 17-4PH / 1.4542 / X5CrNiCuNb17-4 ASTM F899-12b	Medical instruments (surgical tools, orthopedic instrumentation) Acid- and corrosion resistant parts.
	Nickel alloy	<b>EOS NickelAlloy IN718</b>	Inconel™ 718, UNS N07718, AMS 5662, mat. # 2.4668
<b>EOS NickelAlloy IN625</b>		Inconel™ 625, UNS N06625, AMS 5666F, mat. # 2.4856 etc.	Functional prototypes and series-production parts; high-temperature turbine components
<b>EOS NickelAlloy HX</b>		UNS N06002	Components with severe thermal conditions and high risk of oxidation, e.g. combustion chambers, burner components, fans, roller hearths and support members in industrial furnaces
Cobalt chrome	<b>EOS CobaltChrome MP1</b>	CoCrMo super alloy, UNS R31538, ASTM F75	Functional prototypes, series-production parts, mechanical engineering, medical technology, dental
	<b>EOS CobaltChrome SP2</b>	CoCrMo super alloy	Dental restorations (series-production)
	<b>EOS CobaltChrome RPD</b>	CoCrMo super alloy	Removable partial dentures
Titanium	<b>EOS Titanium Ti64</b>	Ti6Al4V light metal	Functional prototypes and series-production parts; aerospace, motorsports etc.
	<b>EOS Titanium Ti64ELI</b>	Ti6Al4V ELI	Functional prototypes and series-production parts in medical technology
	<b>EOS Titanium TiCP**</b>	TiCP Grade 2, 3.7035, ASTM F67 (UNS R50400), ISO5832-2)	Medical implants (trauma plates, CMF Implants, spinal cages, dental implants)
Aluminium	<b>EOS Aluminium AISi10Mg</b>	AlSi10Mg light metal	Functional prototypes and series-production parts; mechanical engineering, motorsports etc.

\* Material in accordance with respective standard

\*\* Currently under development