## **EOS Materials Plastic**

## **Technical Data**



Product class	Product name	Colour of lasersintered parts	Main properties	Typical applications
Polyamide 12	PA 2200	white	<ul> <li>→ Multipurpose material</li> <li>→ Balanced property profile</li> </ul>	Functional parts
	PrimePart® PLUS (PA 2221)	natural	<ul> <li>→ Economical multipurpose material</li> <li>→ Balanced property profile</li> <li>→ Variety of certificates available</li> <li>(Biocompatibility, Food contact)</li> </ul>	Functional parts
	PA 2202 black	anthracite black	<ul> <li>→ Balanced property profile</li> <li>→ Pigmented throughout</li> </ul>	Functional parts in anthracite black colour
Polyamide 12, glass bead filled	PA 3200 GF	whitish	<ul> <li>→ High stiffness</li> <li>→ Wear resistance</li> <li>→ Improved temperature performance</li> </ul>	Stiff housings Parts with requirements on wear and abrasion Parts used under elevated thermal conditions
Polyamide 12, aluminium filled	Alumide®	metallic grey	<ul> <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 Parts requiring machining Parts with thermal loads
Polyamide 12, carbon fibre reinforced	CarbonMide®	anthracite black	<ul> <li>→ Extreme strength and stiffness</li> <li>→ Thermal and limited electrical conductivity</li> <li>→ Best strength / weight ratio</li> </ul>	Light and stiff functional parts Metal replacement
Polyamide 11	PA 1101	natural	<ul> <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 Parts with functional elements like film hinges
	PA 1102 black	black	<ul> <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>	Similar to typical applications for PA 1101 Additionally: black, integrated colour Through mass-colourisation suitable for scratch resistant parts
For special applicat	ions			
Polyamide 12	PA 2201	natural	<ul> <li>→ Multipurpose material</li> <li>→ Material primarily for use in North America</li> </ul>	Functional parts
	PA 2105	light beige	<ul> <li>→ Highest dimensional accuracy</li> <li>→ High surface quality and detail resolution</li> </ul>	Dental
Polyamide 12, flame retardant	PA 2210 FR	white	<ul> <li>→ Flame retardancy</li> <li>→ Halogen-free material</li> </ul>	Aerospace Electric and electronics
	PrimePart® FR (PA 2241 FR)	white	<ul> <li>→ Economic flame-retardant material</li> <li>→ Material certificates available (flammability)</li> </ul>	Aerospace
TPE-A Polyetheramide- Block-Copolymer	PrimePart® ST (PEBA 2301)	white	$\rightarrow$ Rubber-like flexibility (Shore D ≈ 35) $\rightarrow$ No infiltration necessary	Damping devices, bumpers / cushions, gaskets / gasket seals, shoe sole elements
Polystyrene	PrimeCast® 101	grey	<ul> <li>→ High dimensional accuracy</li> <li>→ Low residual ash content (when burned)</li> </ul>	Master patterns for investment casting Master patterns for vacuum casting Economical visual prototypes
Polyaryletherketone	EOS PEEK HP3	beige-brown	<ul> <li>→ High-performance material</li> <li>→ Excellent temperature performance, strength,</li> <li>→ 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>	Metal replacement Aerospace Automotive and motorsports Electric and electronics Medical Industrial
Polypropylen	EOS PP 1101	natural	<ul> <li>→ Excellent chemical persistence</li> <li>→ Suitable for continuous exposure to liquids</li> </ul>	Chemical reactors Tanks and piping Automotive Industry

Detailed information: www.eos.info/material-p

