

# EOS Materials Plastic

## Technical Data

Product class	Product name	Colour of lasersintered 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>	Functional parts
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>	Stiff housings Parts with requirements on wear and abrasion Parts used under elevated thermal conditions
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>	Applications with metallic finish Parts requiring machining Parts with thermal loads
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>	Functional parts requiring impact resistance 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, flame retardant	PA 2210 FR	white	<ul style="list-style-type: none"> <li>→ Flame retardancy</li> <li>→ Halogen-free material</li> </ul>	Aerospace Electric and electronics
	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>	Aerospace
Polystyrene	PrimeCast® 101	grey	<ul style="list-style-type: none"> <li>→ High dimensional accuracy</li> <li>→ Low residual ash content (when burned)</li> </ul>	Master patterns for investment and vacuum casting
Polyetherketoneketone, carbon fiber reinforced	HT-23	grey	<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>	Light and stiff functional parts Metal replacement
Thermoplastic 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 Damping elements 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
	<b>Polyamide 12</b> PA 2200® 60   100   120 µm PA 2201 100 µm PA 3200 GF 100 µm Alumide® 100 µm	<b>Polyamide 11</b> PA 1101 100 µm PA 1102 black 100 µm	<b>FORMIGA P 110 Velocis</b>
		<b>Thermoplastic elastomer</b> EOS TPU 1301 100 µm <b>Polystyrene</b> PrimeCast®101 100 µm	
	<b>Polyamide 12</b> 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	<b>Polyamide 11</b> PA 1101 120 µm PA 1102 black 120 µm HP 11-30 120 µm FR-106 120 µm	<b>EOS P 396</b>
		<b>Thermoplastic elastomer</b> EOS TPU 1301 120 µm <b>Polystyrene</b> PrimeCast®101 150 µm	
	<b>Polyamide 12</b> 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	<b>Polyamide 11</b> PA 1101 120 µm PA 1102 black 120 µm	<b>EOS P 770</b>
		<b>Thermoplastic elastomer</b> EOS TPU 1301 120 µm <b>Polystyrene</b> PrimeCast®101 150 µm	
	<b>Polyaryletherketon</b> HT 23 120 µm		<b>EOS P 810</b>