



Material Data Sheet SLS Nylon12 PA & GF

PA 2200 Balance 1.0 |

PA 2200 is a whitish, polyamide 12-based material, which is characterised by an excellent stiffness in combination with good elongation at break.

- various finishing possibilities (e.g. metallisation, stove enamelling, vibratory grinding, tub colouring, bonding, power coating, flocking)
- bio compatible according to EN ISO 10993-1 and USP/level VI/121°C
- approved for food contact in compliance with the EU Plastics Directive 2002/72/EC (expectation: high alcoholic foodstuff)

PA 2200 delivers the impact strength and durability required for functional testing. Tensile and flexural strength combine to make tough prototypes, with the flex associated with many production thermoplastics. The biocompatibility allows its use for prostheses. Able to emulate living hinge designs to 20+ cycles.

PA 3200 GF |

PA 3200 GF is a whitish, glass-filled polyamide (approx. 30%), which is characterised by an excellent stiffness in combination with low elongation at break. PA 3200 GF is typically used in applications which require high stiffness, heat distortion temperature and low abrasive wear.

Description	ISO	Units	Nylon 12 PA	Nylon 12 GF
Tensile Modulus	527-1/-2	Mpa	1650	3200
Tensile Strength	527-1/-2	Mpa	48	51
Strain at break	527-1/-2	%	18	9
Charpy impact strength	179/1eU	kJ/m ²	53	35
Charpy notched impact strength (+23°C)	179/1eA	kJ/m ²	4.8	5.4
Flexural Modulus (23°C)	178	Mpa	1500	2900
Flexural Strength	178	Mpa	-	73
Izod Impact notched (23°C)	180/1A	kJ/m ²	4.4	4.2
Izod Impact unnotched (23°C)	180/1U	kJ/m ²	33	21
Hardness Shore D (15s)	868	-	75	80
Ball indentation hardness	2039-1	Mpa	77	98
Melting temperature (20°C)/min	11357-1/-3	°C	176	176
Temp. of deflection under load (1.80MPa)	75-1/-2	°C	-	96
Temp. of deflection under load (0.45MPa)	75-1/-2	°C	-	157
Vicat softening temperature (50°C/h 10N)	306	°C	181	179
Vicat softening temperature (50°C/h 50N)	306	°C	163	166
Density (SG) lasersintered	EOS Method	kg/m ³	930	1220
Natural Color			White	Off-White

Tests conducted at 0.12mm layer step