

PROPERTIES

ZX-100K 3D TRIBOFILAMENT



	Characteristic	Standard	Unit / Value specification	ZX-100K
User experience	Beginner	-	Yes / No	No
	Consumer	-	Yes / No	Yes
	Expert	-	Yes / No	Yes
	Professional	-	Yes / No	Yes

	Characteristic	Standard	Unit / Value specification	ZX-100K
Part types	structural parts	-	Yes / No	Yes
	design parts	-	Yes / No	Yes
	wear parts	-	Yes / No	Yes
	High temperature wear parts	-	Yes / No	No

	Characteristic	Standard	Unit / Value specification	ZX-100K
Applications	gears	-	Yes / No	Yes
	bearings	-	Yes / No	Yes
	spindle nuts	-	Yes / No	Yes
	Wear Strips	-	Yes / No	Yes
	scraper	-	Yes / No	Yes
	Tool holders	-	Yes / No	Yes
	damping elements	-	Yes / No	Yes

	Characteristic	Standard	Unit / Value specification	ZX-100K
Printer-conditions	Nozzle temperature	-	°C	260
	space temperature	-	°C	15 to 30
	Print bed temperature	-	°C	<80
	print speed	-	mm/s	42mm/sec

	Characteristic	Standard	Unit / Value specification	ZX-100K
Operating conditions	Max. Continuous working temperature	UL 746B	°C	110
	Min. Continuous working temperature	ISO 6603-2	°C	-40
	Heat distortion resistance	DIN EN ISO 75 / A 1,8 Mpa	°C	80
	Max surface pressure	DIN EN ISO 604	N/mm ²	49-80

	Characteristic	Standard	Unit / Value specification	ZX-100K
characteristics	firmness	-	○○○○	●●●○
	brittleness	-	○○○○	●●●○
	impact resistance	-	○○○○	●●●○
	Mass stability	-	○○○○	●●●○
	wear-resistant	-	○○○○	●●●○
	friction	-	○○○○	●●●○
	Chemical resistant	-	○○○○	●●●○
	Resistant to weathering	-	○○○○	●●●○
	water use	-	Yes / No	Yes
	Food approval EU10/2011	-	Yes / No	Yes
	Food approval fda	-	Yes / No	Yes

	Characteristic	Standard	Unit / Value specification	ZX-100K
print results	smooth surface	-	○○○○	●●●○
	low warping	-	○○○○	●●●●
	easy demolding	-	○○○○	●●●●
	bridging	-	○○○○	●●●○
	odorless	-	Yes / No	Yes
	Colours	-		various
	surface gloss	-	matt / glossy	depending on the printing condition

	Characteristic	Standard	Unit / Value specification	ZX-100K
processing	Glue and weldable	-	○○○○	●●○○
	machinability	-	○○○○	●●●○
	temper	-	○○○○	●●●○
	annealing temperature	-	°C	125

	Characteristic	Standard	Unit / Value specification	ZX-100K
Filament moist	delivery humidity	DIN EN ISO 15512	%	0,05
	Filament storage	-	rel. Feuchte %	<15
	Pressurized filament	DIN EN ISO 15512	%	<0,1

	Characteristic	Standard	Unit / Value specification	ZX-100K
desiccation	drying temperature	-	°C	75
	drying time	-	h	24
	Drying in	-		Umluft, Trockenluft-, Vakkumofen

	Characteristic	Standard	Unit / Value specification	ZX-100K
characteristics	tensile strenght	DIN EN ISO 527	N/mm ²	51-68
	Train modulus	DIN EN ISO 527	N/mm ²	1600-2550
	elongation at break	DIN EN ISO 527	%	3 to 4
	Impact strength Charpy unnotched	EN ISO 179/1eU	kJ/m ²	-
	Ball pressure hardness	DIN 2039 H358/30	N/mm ²	-
	„specific wear rate p = 1N / mm ² ; v = 100m / min; 100Cr6, dry „	ASTM G99:2000	"mm ³ /km * 10 ⁻⁷ "	3,2 to 12
	„specific wear rate p = 10N / mm ² ; v = 4 m / min; 100Cr6, dry „	ASTM G99:2000	"mm ³ /km * 10 ⁻⁷ "	11,5 to 36
	friction	Factory standard (20°C, p= 0,45N/mm ²)	-	0,2

	Characteristic	Standard	Unit / Value specification	ZX-100K
fixation	Glass	-	○○○○	●●●●
	carbon	-	○○○○	●●●○
	aluminum	-	○○○○	●●●○
	steel	-	○○○○	●●●○
	Pertinax	-	○○○○	●●●○
	ceramics	-	○○○○	●●●○