

# Material Information Sheet

## Plural / 3ntr Profiled Materials

### Build Polymers

Material	Density	Max Operating Temperature	Elongation at break	Max tensile strength psi	Flammability UL94	Use Cases	Nozzle Type	Heated Chamber
ABS	1.05	85°C	5.52%	1539	HB	General use	Std	Yes
ASA	1.07	95°C	10.00%	2010	TBD	High UV resistance, general use	Std	Yes
Casting "Wax"	1.1	N/A	~	~	~	Investment casting pattern material with very low ash (.03%) at burnout	Std	Yes
GF30-PP*** (GF polypropylene)	.94	~150°C	1.6%	8,700	TBD	GF30-PP is designed for functional prototyping, industrial tooling, etc.	Tungsten	Yes
IGUS Iglidur	1.21	90°C	~	~	~	Printed-in-place bearing and low friction surfaces	Std	Yes
nPOWER (PPS)	1.27	210°C	7.40%	1966	V0	Self-extinguishing, high temp, extreme chemical resistance	Std/HT*	Yes
Nylon 645	1.15	120°C	186%	5188	HB	Chemical resistance of Nylon 6,6 with slightly lower HDT	Std	Yes
PACF**	1.14	100°C	4%	9267	HB	High fatigue resistance	Tungsten	Yes
PCABS	1.13	109°C	8.40%	2006	HB	Fast print, high impact resistance, metal plating	Std	Yes
PEKK	1.29	172°C @ 1.8MPa	2-4%	~7,000	V94	Developing, annealing required for max performance	Std/HT*	Yes
TECH-G	1.27	75°C	3%	5900	—	Good chemical & fatigue resistance, FDA CFR 177.1315 for food & drink	Std	No
Elasto85A	1.19	95°C	680%	3700	—	Elasto/soft parts	Std*	No
Elasto95A	1.22	95°C	580%	5650	—	Elasto/semi-soft parts	Std*	No
Elasto75D	1.18	95°C	295%	6900	—	Elasto/tough parts	Std*	No

\*this material requires special processes, procedures and/or printer configuration to print. Please request guide sheet prior to printing. HT=requires high temperature nozzle configuration, see owner's manual.

\*\*Carbon fiber filled nylon

\*\*\*Carbon fiber filled polypropylene

### Support Polymers

Material	Removal	Solvent	Compatible Materials	Heated Chamber
SSU00	Break Away	None supported	ASA, ABS, PCABS	Yes
SSU01	Soluble	BioSolv*	ASA, ABS, PCABS	Yes
SSU02	Break Away	None	PACF	No
SSU04	Soluble/BA	Hot water*	TPU, PETG, PACF	No/Yes
SSU05	Break Away	None	nPOWER	Yes
SU301	Soluble/BA	Hot water*	TPU, PETG, Selected Nylons	No/Yes
N1	Break Away	None	Nylon, GF-30 PP	Yes

\*Removal optimized by the use of ultrasonic and flow/agitation cycles at 40-50°C.