



# Ultrasint® Material Portfolio for Powder Bed Fusion

	PA6				PP	PA11				TPU	
	PA6	PA6 MF	PA6 FR	PA6 LM	PP nat 01	PA11	PA11 GB 30	PA11 CF	PA11 ESD	TPU01 for HP JF	TPU 88A
Tensile Strength / MPa	66/47	91/62*	56/41*	73/44*	28	52/45*	47/33*	82/71*	65/55*	9	8
Young's Modulus / GPa	3.7/1.7*	6.2/3.3*	4.8/2.5*	4.9/1.5*	1.4	1.8/1.1*	2.6/1.2*	5.9/4.5*	3.1/2.3*	0.075	0.075
Elongation at break / %	2/16*	2/7*	1/3*	3/17*	30	28/45*	7/66*	7/11*	20/22*	280	270
Charpy impact strength, unnotched / kJ/m <sup>2</sup>	7.5/6.8*	13/28*	5/7*	18/52*	29	184/198*	40/166*	54/63*	80/101*	no break	no break
HDT A / °C	103	121	113	98	62	76	87	151	111		
HDT B / °C	192	209	207	183	102	176	176	189	186		
Shore A hardness										88	88-90
Available color(s)	natural	black	black	black	natural	natural**, black	natural	black	grey	grey	white
Special properties	tightness, heat ageing	in-particle reinforcement	UL94 V-2 FST & ECE	standard LS equipment	chemical resistance	toughness	abrasion	lightweight	ESD safe	rubber-like	rubber-like
Recycling rate old/new in %***	60/40	60/40	60/40	60/40	60/40	70/30	60/40	60/40	60/40	80/20	80/20
Stiffness	★★★★	★★★★	★★★★	★★★★			★★	★★★★	★★★		
Strength	★★★★	★★★★★★	★★	★★★★		★★	★★★★	★★★★	★★		
Ductility	★★★★				★★★★	★★★★			★★	★★★★★	★★★★★
Toughness		★★★★		★★★★		★★★★	★★★★	★★★★	★★★★	★★★★★	★★★★★
Temperature resistance	★★★★★★	★★★★	★★★★	★★				★★★			

Typical values. All values shown are measured in x-direction. V2.1 04/2021

\*) dry/conditioned \*\*) technical data shown here is based on this color

\*\*\*) Typical value. The recycling rate depends on machine type used, usage intensity and individual part quality requirements