

BASF Material Portfolio for Powder Bed Fusion – Overview

	Ultrasint					Adsint				
	PA6	PA6 MF	PA6 FR	PA6 LM	PP	PA12	PA11	PA11 GB 30	PA11 CF	TPU 90 flex
Tensile Strength / MPa	61/54*	91/62*	56/41*	73/40*	29	46	50	43	66	10
Young's Modulus / GPa	3.5/1.6*	6.2/3.3*	4.8/2.5*	4.7/1.5*	1.4	1.7	1.6	2.0	4.0	
Elongation at break / %	2/51*	2/7*	1/3*	4/12*	50	22	45	9	9	250
HDT A / °C	95/87*	123/101*	112/101*	105	56	70	55	64	129	
HDT B / °C	182/170*	210/201*	207/205*	180	71	150	150	180		
Charpy impact strength, unnotched / kJ/m ²	7/13*	13/28*	5/7*	40	22	87	150	112	68	
Available color(s)	natural, black	black	black	black	natural	natural	natural, black	natural	black	natural, black
Special properties	strength, tightness	in-particle filler	UL94 V-2	standard LS equipment	prototyping + beyond	known LS material	toughness	rigidity	strength with CF	rubber-like
Stiffness	★★★	★★★★★	★★★★★	★★★				★★★	★★★★★	
Strength	★★★★★	★★★★★	★★★			★★★	★★★	★★★	★★★★★	
Elasticity	★★★			★★★	★★★★★	★★★	★★★★★			★★★★★
Toughness		★★★		★★★★★		★★★★★	★★★★★	★★★★★	★★★	
Temperature resistance	★★★	★★★★★	★★★★★	★★★★★					★★★★★	
Industrially used in IM	★★★★★	★★★★★	★★★★★	★★★	★★★★★					★★★★★

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Typical, preliminary values. All values shown are measured in x-direction.
*) dry/conditioned