

SABIC's LNP™ THERMOCOMP™ AM Portfolio for Pellet-fed additive manufacturing

ABS (Broad application use)	PPE (Water environment, UV)	PC/PBT (Chem resistance, UV)	PC (Stiffness, surface appearance)	PEI (High heat)	PES/PESU (High heat)
<ul style="list-style-type: none"> • Easy to process • Good print surface • Good impact • Low warp • Lowest heat performance 	<ul style="list-style-type: none"> • Based on NORYL™ resin • Excellent performance in water • Inherent UV performance • Lower thermal expansion vs. ABS • Higher strength to weight ratio vs. ABS • Good hydrolysis resistance 	<ul style="list-style-type: none"> • Amorphous / semi-crystalline blend with processability like PC • Improved chem resistance vs. ABS and PC • Low warp and better sag resistance • Improved UV stability vs ABS and PC 	<ul style="list-style-type: none"> • Excellent surface finish • 10 – 15% higher throughput vs. ABS and PPE • Low warp • Good flex and tensile properties • Stiffness and toughness over a broad temp range (-20°C to 135°C) • Good processability • DC004XXA11 grade has been successfully used in tooling for oven cure applications at 120 °C - 135 °C (250 °F – 275 °F) 	<ul style="list-style-type: none"> • Based on ULTEM™ resins • Superior tensile and flex properties • High heat performance • Improved chemical resistance vs. ABS, PPE and PC • Inherently FR • Low smoke emission during combustion • Lower thermal expansion vs. PESU • EM grades available for better flow and wider process window. • Grades have successfully been used in tooling for both oven cure and autoclave applications at temps up to 176 °C – 190 °C (350 °F – 375 °F) 	<ul style="list-style-type: none"> • High heat performance • Improved chemical resistance vs. ABS, PPE and PC • Inherently FR • Grades have successfully been used in tooling for both oven cure and autoclave applications at temps up to 176 °C – 190 °C (350 °F – 375 °F)
ABS Grades	PPE Grades	PC/PBT Grades	PC Grades	PEI Grades	PES/PESU Grades
AF004XXAR1 – 20GF AC004XXAR1 – 20CF	ZF004XXAR1 – 20GF ZC004XXAR1 – 20CF	6C004XXAR1 – 20CF	DF004XXAR1 – 20GF(HDT: 139°C) DC004XXAR1 – 20CF(HDT: 144°C) ----- High heat – Bridging temp gap between PC and PEI, PESU DC004XXA11 – 20CF(HDT: 181°C) ----- FR – Low flame, smoke, toxicity DC0041XA51 – 20CF (HDT: 97°C)	EF004XXAR1 – 20GF (HDT: 209C) EZ006EXAR1– 30mGF EM (HDT: 209C) EC004XXAR1 – 20CF (HDT: 209C) EC004EXAR1 – 20CF EM (HDT:209C) ----- EC004APAR1 – 20CF -exceptional processing (HDT:170C)	JC004XXAR1 – 20CF
CUT ~ 85°C / HDT ~ 102°C	CUT ~ 95 °C / HDT ~ 134 °C	CUT ~90 °C / HDT ~ 90 °C	CUT ~ 115 °C+ / HDT~ 97 °C - 181 °C	CUT ~170 °C / HDT ~ 209 °C	CUT~ 175 °C / HDT ~ 212 °C