

Chemical compatibility for additive manufacturing materials

Key	Rating	Description
E	Excellent	Material is unlikely to degrade during prolonged exposure
G	Good	Material is unlikely to degrade during short-term exposure
F	Fair	Material will likely degrade during short-term exposure
P	Poor	Material will likely degrade upon immediate exposure

		CARBON DIGITAL LIGHT SYNTHESIS (DLS™)								MJF	FUSED DEPOSITION MODELING (FDM)								
		RPU 70	RPU 130	CE 221	EPX 82	EPX 86FR	EPU 40	EPU 41	SIL 30	PA 12	ABS-M30	ASA	PC-ABS	PC	ULTEM 9085	Nylon 12	PPSF	ULTEM 1010	Antero 800NA
	CHEMICAL DESCRIPTION																		
HOUSEHOLD CHEMICALS	Bleach (NaClO, 5%)	E		E	E	E	E	E	E										
	Sanitizer (NH4Cl, 10%)	E		E	E	E	E	E	G										
	Chlorine Salts									E									
	Hot water									G									
	Deionized Water										E	E	E	G	E	E	E	E	E
	Distilled Water	E		E	E	E	E	E	G										
	Sunscreen (Banana Boat, SPF 50)	E	G	E	E	E	G	P	G										
	Detergent (Tide, Original)	E		E	E	E	E	G	G										
	Windex Powerized Formula	E		E	E	E	G	G	G										
	Hydrogen Peroxide (H2O2, 30%)	E		E	E	E	F	F	F										
	Alcohol/Ethanol	F		E	G	E	P	P	P	E	G	G	G	G	G	P	G	G	E
	Phenols										P	P	P	P	P	P	P	P	E
	Esters									E	F	F	P	F	G	E	G	G	E
	Ethers									E									
	Ketones									E									
	Aliphatic hydrocarbons (methane, propane, butane)									E	G	G	F	F	G	E	E	G	E
	Aromatic hydrocarbons (benzene)									E	F	F	F	F	G	E	G	E	E
	Halogenated hydrocarbons (CFCs)										P	P	P	P	P	P	F	F	G
	Ketones (MEK, acetone)										P	P	P	P	F	G	F	F	E
	Chlorinated hydrocarbons									G									
	Trichloroethylene									G									
INDUSTRIAL FLUIDS	Motor Oil									E	F	F	F	F	G	E	G	G	E
	Windshield Washer Fluid										G	G	G	G	E	E	E	E	E
	Engine Oil (Havoline SAE 5W-30)	E	E	E	E	E	E	E	E										
	Brake Fluid (Castrol DOT-4)	E		E	E	E	F	F	P	E	F	F	F	F	F	E	G	G	E
	Airplane Deicing Fluid (Type I Ethylene Glycol)	E		E			E		E										
	Airplane Deicing Fluid (Type I Propylene Glycol)	E		E			E		G										
	Airplane Deicing Fluid (Type IV Ethylene Glycol)	E		E			E		E										
	Airplane Deicing Fluid (Type IV Propylene Glycol)	E		E			E		G										
	Transmission Fluid (Havoline Synthetic ATF)	E	E	E	E	E	E	E	E		F	F	F	F	F	E	G	G	E
	Engine Coolant (Havoline XLC, 50%/50% Premixed)	E		E	E	E	E		E		G	G	G	F	G	E	E	E	E
	Petroleum Greases										G	G	G	F	G	E	E	G	E
	Silicone Greases										P	P	P	P	G	G	G	G	E
	Diesel (Chevron #2)	E	F	E	E	E	P	P	F										
	Gasoline (Chevron #91)	P		E			P		P	E	G	G	F	F	E	E	G	E	E
	Skydrol 500B-4	G		E	E	E	P	P	P										
STRONG ACID/BASE	Sulfuric Acid (H2SO4, 30%)	E		E	E	E	P	F	P										
	Sodium Hydroxide (NaOH, 10%)	E		E	E	E	E		E										
	Diluted alkalis									E									
	Concentrated alkalis									E									