

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 |

| | FUSED DEPOSITION MODELING (FDM) | | | | | | | | | | |
|---|---|---------------------------------|----------|----------|------------|----------|----------|------------|--------------|----------|----------|
| | ABS-M30 | ASA | PC-ABS | PC | ULTEM 9085 | Nylon 12 | PPSF | ULTEM 1010 | Antero 800NA | | |
| CHEMICAL DESCRIPTION | | | | | | | | | | | |
| HOUSEHOLD CHEMICALS | Bleach (NaClO, 5%) | | | | | | | | | | |
| | Sanitizer (NH4Cl, 10%) | | | | | | | | | | |
| | Chlorine Salts | | | | | | | | | | |
| | Hot water | | | | | | | | | | |
| | Deionized Water | E | E | E | G | E | E | E | E | | |
| | Distilled Water | | | | | | | | | | |
| | Sunscreen (Banana Boat, SPF 50) | | | | | | | | | | |
| | Detergent (Tide, Original) | | | | | | | | | | |
| | Windex Powerized Formula | | | | | | | | | | |
| | Hydrogen Peroxide (H2O2, 30%) | | | | | | | | | | |
| | Alcohol/Ethanol | G | G | G | G | G | P | G | G | E | |
| | Phenols | P | P | P | P | P | P | P | P | E | |
| | Esters | F | F | P | F | G | E | G | G | E | |
| | Ethers | | | | | | | | | | |
| | Ketones | | | | | | | | | | |
| | Aliphatic hydrocarbons (methane, propane, butane) | G | G | F | F | G | E | E | G | E | |
| | Aromatic hydrocarbons (benzene) | 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 | | | | | | | | | | |
| | Trichloroethylene | | | | | | | | | | |
| | INDUSTRIAL FLUIDS | Motor Oil | 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) | | | | | | | | | |
| Brake Fluid (Castrol DOT-4) | | F | F | F | F | F | E | G | G | E | |
| Airplane Deicing Fluid (Type I Ethylene Glycol) | | | | | | | | | | | |
| Airplane Deicing Fluid (Type I Propylene Glycol) | | | | | | | | | | | |
| Airplane Deicing Fluid (Type IV Ethylene Glycol) | | | | | | | | | | | |
| Airplane Deicing Fluid (Type IV Propylene Glycol) | | | | | | | | | | | |
| Transmission Fluid (Havoline Synthetic ATF) | | F | F | F | F | F | E | G | G | E | |
| Engine Coolant (Havoline XLC, 50%/50% Premixed) | | 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) | | | | | | | | | | | |
| Gasoline (Chevron #91) | | G | G | F | F | E | E | G | E | E | |
| Skydrol 500B-4 | | | | | | | | | | | |
| STRONG ACID/BASE | Sulfuric Acid (H2SO4, 30%) | | | | | | | | | | |
| | Sodium Hydroxide (NaOH, 10%) | | | | | | | | | | |
| | Diluted alkalies | | | | | | | | | | |
| | Concentrated alkalies | | | | | | | | | | |