

Chemical Resistance Chart for Various Plastics

Chemical Resistance and Physical Properties E Excellent resistance, no damage G Good resistance, minor damage P Limited resistance, suitable for short term use only (7 days or less) N Not recommended for continuous use TL Translucent C Clear	Polypropylene (PP)	Low-Density Polyethylene (LDPE)	High-Density Polyethylene (HDPE)	Polymethyl- pentene (PMP/TPX)	Polycarbonate (PC)	Polystyrene (PS)	Polyester Copolymer (PETG)
Acids—Dilute or Weak	E	E	E	E	E	E	E
Acids—Concentrated	E	E	E	E	N	P	P
Alcohols	E	E	E	E	G	E	E
Aldehydes	G	G	G	G	P	N	N
Bases	E	E	E	E	N	E	E
Esters	G	G	G	G	N	N	N
Hydrocarbons— Aliphatic	G	P	G	P	N	N	P
Aromatic	P	P	G	P	N	N	N
Halogenated	P	N	P	N	N	N	N
Ketones	G	G	G	P	N	N	N
Oxidizing Agents	P	P	P	P	N	N	G
Transparency	TL	TL	TL	C	C	C	C
Maximum Use Temperature (°C)	135	80	120	180	130	70	70
Autoclavable*	Yes	No	No	Yes	Yes	No	No
Chemical Disinfectant Sterilization	Yes	Yes	Yes	Yes	Yes	No	Yes
Density (grams per mL)	0.90	0.92	0.95	0.83	1.20	1.05	1.27

*Autoclaving Tip: Clean and rinse item with distilled water before autoclaving. Certain chemicals which have no appreciable effect on resins at room temperature may cause deterioration at autoclaving temperatures unless removed with distilled water beforehand. Standard autoclave conditions are 121 °C, 15 psi, for 30 minutes.