



## Chemical Resistance Cyclic Olefin Polymer (COP)

The following table contains an evaluation of chemical resistance to a number of fluids, judged to be either aggressive or not towards COP. In general, common chemical names are used. Regarding the resistance of TPP products to chemicals, many factors need to be considered:

- exposure time
- concentration of chemicals
- thermal stress (e.g., autoclaving)
- exertion of force
- exposure to UV radiation
- aging, which may be caused by the action of detergents
- other environmental factors

TPP's recommendations based on technical literature and information provided by raw material manufacturers. They have been carefully prepared and are intended as a general guide for users of plastic materials. However, they cannot replace suitability testing performed by the user under actual working conditions. For the list of chemical resistance, the following legend is valid:

<b>+ = Good chemical resistance</b>	<b>± = Good to limited chemical resistance</b>	<b>- = Poor chemical resistance</b>
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Chemicals	COP
<b>A</b>	
Acetic acid 99%	+
Acetone	+
Acrylonitrile	+
Ammonia 33%	+
<b>B</b>	
Benzaldehyde	±
Benzene	-
Butanone	+
<b>C</b>	
Carbon tetrachloride	-
Chloroform	-
Cyclohexane	-
Cyclohexanone	-
<b>D</b>	
Detergents	+
Dibutyl ether	-
Dichloromethane	-
Diethyl ether	-
Dimethyl sulfoxide (DMSO)	+
<b>E</b>	
Ethanol 50%	+
Ethanol 96%	+
<b>F</b>	
Fatty acid	-

Chemicals	COP
<b>H</b>	
n-Heptane	-
Hexane	-
Hydrochloric acid (HCl) 36%	+
Hydrogen peroxide water 30%	+
<b>I</b>	
Isopropanol	+
<b>M</b>	
Methanol	+
Methylene chloride	-
<b>N</b>	
Nitric acid (HNO <sub>3</sub> )	+
Nitric acid 40 – 50%	+
<b>O</b>	
Octane	-
<b>P</b>	
Pentane	-
<b>S</b>	
Sodium hydroxide (NaOH) 50%	+
Sulphuric acid (H <sub>2</sub> SO <sub>4</sub> ) 95%	+
Sulphuric acid (H <sub>2</sub> SO <sub>4</sub> ) 40%	+
<b>T</b>	
Toluene	-
<b>X</b>	
Xylene	-



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