

Resistance to corrosive substances

Chemical substance	Methacrylate	Polycarbonate	Glass	Aluminium	Steel	Stainless steel
Acetone	–	–	•	•	•	•
Acetic acid up to 10%	–	Δ	•	–	Δ	•
Arsenic acid up to 20%	•	•	Δ	–	Δ	–
Citric acid up to 10%	•	•	•	Δ	Δ	Δ
Hydrochloric acid up to 20%	•	•	Δ	–	–	–
Chromic acid	Δ	Δ	Δ	Δ	Δ	Δ
Formic acid up to 30%	Δ	–	–	–	Δ	Δ
Nitric acid up to 20%	Δ	Δ	Δ	–	–	Δ
Sulphuric acid up to 30%	•	•	Δ	–	–	–
Seawater	•	•	Δ	Δ	Δ	Δ
Ethyl alcohol	–	•	•	•	Δ	Δ
Isopropyl alcohol	Δ	–	•	Δ	Δ	Δ
Ammonia	•	–	Δ	•	Δ	•
Aniline	–	–	•	•	•	•
Petrol	•	Δ	•	•	•	•
Benzole	–	–	•	Δ	Δ	Δ
Bromine	–	Δ	•	Δ	–	–
White lime	•	Δ	–	–	•	•
Diesel oils	•	Δ	–	•	•	•
Sea climate	•	•	Δ	Δ	Δ	Δ
Liquid chlorine (fumes)	–	–	–	•	–	–
Chloroform	–	–	•	•	•	Δ
Calcium chloride	•	•	•	•	Δ	Δ
Ferric chloride	•	Δ	–	Δ	Δ	–
Hexane	•	Δ	•	•	Δ	Δ
Ether	–	–	–	•	•	•
Petroleum ether	•	Δ	–	•	•	•
Ethyl ether	•	–	•	•	•	–
Phenols	–	–	•	Δ	•	•
Glycerine	•	Δ	•	•	•	•
Hydrocarbons	–	–	•	•	•	•
Methanol	–	–	•	Δ	•	•
Silicone oils	Δ	•	•	•	•	–
Food oils and fats	•	Δ	•	•	•	–
Mineral oils	•	–	•	•	•	•
Vegetable oils	Δ	•	•	–	–	–
Diesel oil - naphtha	–	–	•	•	•	•
Ozone	•	–	•	•	Δ	•
Potassium permanganate	•	•	•	Δ	•	•
PVC with plasticizers	–	–	•	•	•	–
Soda	•	•	–	–	–	Δ
Caustic soda	•	–	–	–	–	•
Zinc sulphate	•	•	–	•	Δ	Δ
Aluminium sulphate	•	•	•	•	Δ	Δ
Copper sulphate	•	•	•	•	Δ	Δ
Carbon tetrachloride	–	–	•	•	•	•
Toluene	–	Δ	–	•	•	•
Trichloroethylene	–	–	–	•	Δ	Δ

The table only provides a rough indication of the maximum amount of various chemical agents in different compositions. When using these data, bear in mind that they are the results of laboratory tests and are therefore only valid under the same conditions in which the tests were performed; the data should therefore be considered indicative, and it is advisable to perform tests in their actual usage conditions if practical experience is not available.

It is not possible to talk about "compatibility" in general terms, since this depends on:

- Concentration.
- Temperature.
- Contact type.
- Contact duration.
- Mechanical action during contact.
- Simultaneous presence of multiple chemical compounds.
- The function of the potentially attacked material, mechanical stress to which it is exposed and numerous other factors, which are highly variable, making the indications given in this table truthful but general, and therefore not exhaustive.

Some versions of 3F luminaires are also proposed with laminated glass which, in addition to being resistant to the substances listed above, allows for these to be used in environments with food products or with machines with moving parts, with sudden temperature changes and, in general, in all environments requiring total protection against falling fragments.

- = resistant
- Δ = relatively resistant, suitability to be evaluated on basis of application
- = not resistant