Chemical Behaviour

PLEXIGLAS® GS
PLEXIGLAS® XT

The stated behaviour was established for the grades PLEXIGLAS GS 215, 218, 221, 222, 224, 231, 233, 240, 245 and 2458 as well as for PLEXIGLAS XT. The extruded materials are, however, attacked more easily by solvents.

For greater chemical resistance, grade PLEXIGLAS GS 209 is recommended.

The data given refer to a test temperature of 23 °C and presuppose stress-free installation.

The behaviour of the material in practice depends largely on the temperature in use. In case of doubt, we advise you to consult us as to the chemical resistance for particular applications.

The results obtained for all products, especially the branded ones, refer to the production batch tested in each case.

Paints, etc.
o Acrylic paints and lacquers
+ Non-aromatic benzines
- Nitrocellulose lacquers
+ Oil paint, pure
- Thinners in general

Antistatics
+ HB 155
+ Antistatic fluid and cleaning agent

Technical baths
+ Electroplating baths
+ Photochemical baths

Building materials and protectives
- Bitumen emulsion
+ Cement
+ Gypsum
o Hot bitumen
+ Mortar
+ Red lead

Chemicals, solvents, etc.
a) General
- Acetic acid, concentrated
o Acetic acid, up to 25%
- Acetone

+ Alum
+ Aluminium chloride
+ Aluminium oxalate
+ Aluminium sulphate
- Ammonia water
+ Ammonium sulphate
- Amyl acetate
- Aniline
+ Arsenic
+ Arsenic acid
+ Battery acid
- Benzaldehyde
- Benzene
+ Benzine, pure
- Bromine
- 1-Butanol
- Butyl lactate
+ Butyric acid, up to 5%
+ Calcium chloride
+ Calcium hypochlorite
- Carbon disulphide
- Carbon tetrachloride
- Chlorinated hydrocarbons
- Chlorine, liquid
o Chlorine water
- Chloroethyl ether
- Chlorophenol
o Chromic acid
+ Citric acid, up to 20%
+ Copper sulphate
- Cresol
+ Cyclohexane
- Diacetone alcohol
o Diamyl phthalate
- Dibutyl phthalate
+ Diethylene glycol
- Dioxane
- Ether
- Ethyl acetate
- Ethanol, concentrated
o Ethanol, up to 30%
- Ethyl bromide
- Ethyl butyrate
- Ethylene bromide
+ Ferric chloride
+ Ferrous chloride
+ Ferrous sulphate
+ Formic acid, up to 2%
o Formic acid, up to 40%
+ Glycerol
+ Glycol
+ Heptane
+ Hexane
+ Hydrochloric acid
+ Hydrofluoric acid, up to 20%
+ Hydrogen peroxide, up to 30%
+ Iodine, metallic

+ Lactic acid, up to 20%
+ Magnesium chloride
+ Magnesium sulphate
+ Manganese sulphate
+ Mercury
- Methanol, concentrated
o Methanol, up to 30%
- Methyl ethyl ketone
- Methylated spirits
+ Milk of lime
+ Monobromonaphthalene
+ Nickel sulphate
+ Nitric acid, up to 40%
- Nitric acid, over 40%
+ Oxalic acid
- Perchloroethylene
+ Petroleum
+ Petroleum ether
- Phenols
+ Phosphoric acid, up to 50%
- Phosphorus trichloride
- Phosphorus, white
+ Picric acid, 1% in water
+ Potassium bichromate
+ Potassium carbonate
+ Potassium chloride
+ Potassium cyanide
+ Potassium hydroxide solution
+ Potassium nitrate
+ Potassium permanganate
o 2-Propanol
+ Propylene
- Pyridine
- Silicon tetrachloride
+ Silver nitrate
+ Soap solution
+ Soda
+ Sodium bisulphite
+ Sodium carbonate
+ Sodium chlorate
+ Sodium chloride
+ Sodium hydroxide solution, 30%
+ Sodium hypochlorite
+ Sodium sulphate
+ Sodium sulphide
+ Stannous chloride
+ Stearic acid
+ Sulphur
- Sulphur dioxide, liquid
+ Sulphuric acid, up to 30%
o Sulphurous acid, conc.
+ Sulphurous acid, up to 5%
+ Sulphuryl chloride
+ Tartaric acid, up to 50%
- Thionyl chloride
- Toluene
+ Triethylamine

- Trichloroacetic acid
+ Turpentine
+ Turpentine substitute
+ Urea, up to 20%
- Xylene
+ Zinc sulphate, aqueous
+ Zinc sulphate, solid

b) Branded products
+ CLOPHEN® T 55, A 60
o DEKALIN®
o FRIGEN® A 12 (CF_2Cl_2)
- GLYBAL® A
+ PALATINOL® K
o PALATINOL® 0, BB new
+ SANGAJOL®
+ TERAPIN®
- TETRALIN®

Disinfectants
a) General
- Carbolic acid
+ Chlor. lime paste
+ Hydrogen peroxide, up to 40%
o Hydrogen peroxide, over 40%
- Iodine tincture, 5%
+ Lugol solution
- Methylated spirits
+ Sublimate

b) Branded products
o ÄTHROL® up to 5%
- BAKTOLAN®, conc.
+ BAKTOLAN®, up to 5%
+ CHINOSOL®, up to 1%
+ CHLORAMIN®, solution
- CHLORAMIN®, suspension
+ ELMOCID GAMMA®, up to 2%
- LYSOFORM®
+ MEFAROL®, up to 1%
+ MERCKOJOD®, up to 1%
+ MERFEN®
+ PERHYDROL®
+ PERODIN®
+ SAGROTAN®, up to 2%
o SAGROTAN®, up to 5%
o VALVANOL®, up to 2%
+ ZEPHIROL®, up to 5%

Fertilisers
+ NITROPHOSKA®, various grades

Fats, oils, waxes
+ Animal
+ Mineral
o Silicone oil
+ Vegetable

Gases and vapours
+ Ammonia
o Bromine vapours, dry
+ Carbon dioxide
+ Carbon monoxide
+ Citygas
o Chlorine vapours, dry
+ Exhaust gases containing HCl
+ Exhaust gases containing HF
+ Exhaust gases containing H_2S0_4
+ Hydrogen sulphide
+ Methane
+ Nitrogen dioxide
+ Nitrogen monoxide
+ Oxygen
+ Ozone
+ Sulphur dioxide, dry

Beverages, etc.
+ Beer, wine
+ Camomile extract
+ Chocolate
+ Fruit juice, milk, coffee
o Spirits, up to 30%
+ Vinegar
+ Water, mineral water

Adhesives and sealants
- Acrylate sealing compound
o All-purpose adhesive
+ Insulating tape
o PATTEX® special-purpose glue
+ PERBUNAN®
o PLEXISOL® adhesive
o PLEXIT®
+ PLEXTOL® adhesive
- Polyurethane sealing compound
+ Sealing strips (EGO-FERM®, TEROSTAT® 81/86)
o Silicone
- Thiokol rubber (one-and-two component)

Cosmetics, etc.
- Camphor
+ DIPLONA® hair oil
+ Face tonic
+ Glycerine
+ Hair setting lotion (PRIMAWELL®)
- Nail varnishes
- Nail varnish removers
+ Ointments
+ Peat water
+ POLYCOLOR®
+ Seawater
+ Soaps
o Sprays

Plastics
+ Foam plastics
- Foam plastics, plasticised
+ Polyamide
+ Polyethylene
+ PVC
- PVC, plasticised
+ Rubber
- Rubber, plasticised

Foods and spices
+ Aniseed, bay leaf, nutmeg
- Cloves
+ Common salt
+ Honey, pure
+ Ice cream
+ Meat, fish
+ Pepper, cinnamon, onions
+ Pickles

Cleaning agents
a) General
Acids, see under chemicals
- Alcohol, concentrated
o Alcohol, up to 30%
Alkalis, see under chemicals
+ Ammonia solution
- Benzine, mixture, containing aromatics
+ Benzine, non-aromatic
+ Bleach
- Carbon tetrachloride
- Methylated spirits
- Perchloroethylene
+ Petroleum
+ Petroleum ether
+ Soap solution
+ Soda water
- Stain remover
- Trichloroethylene
+ Turpentine
+ Turpentine substitute

b) Branded products
+ AJAX®
+ ANTISTATISCHER KUNSTSTOFFREINIGER UND PFLEGER
+ BFK® cleanser
o BOLIMENT®
+ BÖTTCHERIN®
+ BURMAT®
+ BURNUS®
+ CILLIT-GRÜN®
+ DOR®
+ DOSYL®
+ DOSYLAN®
+ FAKO® Polish
+ FAKO® Polishing Paste
+ FEWA®

+ FRAPPIN®
+ FÜLLBOX®
+ LAVAPLEX®
+ NULL-NULL®
+ PERSIL®
+ PLEXIKLAR®
+ PRIL®
+ REI®
+ SEIFIX®
- SIDOLIN®
- SPECTROL®
+ SPÜLI®
+ WC-00®

c) Cleaning agents for pipes and tanks
+ CALGONIT® D, DA, S
+ NEOMOSCAN® M, M powder
+ Niroklar GR liquid
+ Niroklar GR powder
+ P3
o P3 basic cleaner
+ P 3-dix

Pesticides
- Sprays (applied directly)
o Sprays (applied in the air)
o Pesticides in aqueous solutions
+ NEXION® stable spray
+ RABOND® stable spray

Protective coatings (strippable)
+ DIEGEL® liquid film 23922
+ KOPPERSCHMIDT® covering paste
o SPRAYLAT

Other substances
+ Urine
- Fuel for petrol engines
o Fuel for diesel engines

The symbols signify:

+ = resistant
o = conditionally resistant
– = not resistant

Note:
The commercial products mentioned in columns b), and especially those marked ®, have been tested on our products just once.
Different results may be obtained if manufacturers change their formulations.

Our technical advice on the uses of our materials is given without obligation. The buyer is responsible for the application and processing of our products and is also liable for observing any third-party rights. Technical data concerning our products are typical values. Subject to alteration.

® = registered trademark

PLEXIGLAS = registered trademark of Röhm GmbH, Darmstadt

Important notice
This is an international English-language information prepared for several markets.
It is essential that the selection of particular materials and their methods of use conform with the requirements of national and local Building Regulations.
The availability of any particular product should be checked with your supplier.