

Technical information

Chemical resistance of plastics

Important criteria for the testing of chemical resistance are: temperature, chemical concentration, duration, and mechanical stress. The table shows resistance to different chemicals. Shown data is based on current state of knowledge and makes no claim of being complete.

Therefore, they shall not constitute the provision of legally binding guarantees for the chemical resistance of our products or its suitability for specific areas of application. Tests are carried out in a normal climate of 23/50 (23 °C air temperature, 50 % humidity) according to DIN EN ISO 291 at standard climate.

	Material	PE 300	PE 500	PE 1000	PA 6.6	PA 12	POM-C	POM-H	PET	PET-P	PVDF	PEEK	PTFE	ABS	PC	PETG	PMMA
A	Acetamide 50 %	++	++	++	++	++	++	++	n.sp.	+	++	++	++	++	-	n.sp.	n.sp.
	Acetone	++	++	++	++	+	++	++	+	+	+	++	++	-	-	-	-
	Ammonia, watery 10 %	++	++	++	+	n.sp.	++	+	-	n.sp.	++	++	++	++	-	+	++
	Anon	+	+	+	++	++	n.sp.	++	n.sp.	n.sp.	+	n.sp.	++	n.sp.	-	-	n.sp.
	Acetic acid concentrated	+	+	+	-	-	-	-	-	-	+	+	++	-	-	-	-
	Acetic acid, watery 10 %	++	++	++	-	+	++	+	+	+	++	++	++	++	++	+	++
	Acetic acid, watery 5 %	++	++	++	++	+	++	+	++	++	++	++	++	++	++	++	++
B	Benzene	+	+	+	++	++	++	++	++	++	++	++	++	+	-	+	++
	Benzene	-	-	-	++	++	++	++	+	+	+	++	++	-	-	-	-
	Bitumen	++	++	++	++	++	++	++	n.sp.	n.sp.	n.sp.	++	++	n.sp.	+	+	n.sp.
	Boric acid, watery 10 %	++	++	++	-	-	-	-	-	-	++	+	++	++	++	++	++
	Butyl acetate	++	++	++	++	++	++	++	-	-	-	++	++	-	-	-	-
C	Calcium chloride, watery 10 %	+	+	+	++	++	++	+	++	++	++	++	++	++	++	++	++
	Chlorobenzene	-	-	-	++	++	++	++	-	-	+	++	++	-	-	++	-
	Chloroform	-	-	-	-	-	-	-	-	-	++	++	++	-	-	n.sp.	-
	Cyclohexane	++	++	++	++	++	++	++	++	++	++	++	++	++	-	++	++
	Cyclohexanone	++	++	++	++	++	++	++	-	-	+	++	++	-	-	-	-
	Caustic potash solution, watery 50 %	++	++	++	+	+	++	-	-	-	+	++	++	++	-	-	++
	Caustic potash solution, watery 10 %	++	++	++	++	++	++	-	-	-	+	++	++	++	-	-	++
	Copper (II) sulphate, 10 %	++	++	++	++	++	++	-	n.sp.	n.sp.	++	++	++	++	++	++	++
	Caustic soda, watery 5 %	++	++	++	++	++	++	-	+	+	+	++	++	n.sp.	-	-	++

Legend
++ = good to very good resistance + = resistant - = not resistant n.sp. = not specified

All information based on current knowledge and experience. Information provided shall not exempt the contractor or user from conducting own tests. A legally binding warranty as to product features or its suitability for specific purposes may not be derived therefrom. Compliance with any proprietary rights as well as existing laws or regulations is the responsibility of the recipient of our products. No liability assumed for printing and any other errors. Technical data subject to change without notice. Reproduction or duplication of this document or its contents - whole or in part - is only permitted with express approval by company noltewerk. As of 1021.



Technical information

Chemical resistance of plastics

Material	PE 300	PE 500	PE 1000	PA 6.6	PA 12	POM-C	POM-H	PET	PET-P	PVDF	PEEK	PTFE	ABS	PC	PETG	PMMA
Caustic soda, watery 50%	++	++	++	+	+	++	-	-	-	+	++	+	++	-	-	++
Carbon disulphide	+	+	+	++	++	++	++	++	++	++	++	++	-	-	n.sp.	-
Carbon tetra-chloride	-	-	-	++	-	+	+	++	++	++	++	++	-	-	+	+
Citric acid, aqueous 10%	++	++	++	+	+	+	-	++	++	++	++	++	++	++	+	n.sp.
D Diesel oil	++	++	++	++	++	++	++	++	++	++	++	++	++	-	++	+
Dimethyl-formamide	++	++	++	++	+	++	+	++	++	-	++	++	-	-	++	n.sp.
Diethyl-phthalate	++	++	++	++	++	++	++	++	++	+	++	++	n.sp.	-	++	-
Dioxane	++	++	++	++	++	+	+	+	+	++	++	++	n.sp.	-	++	-
E Ethylacetate	++	++	++	++	++	++	++	+	+	+	++	++	n.sp.	-	-	-
Ethyl ether	++	++	++	++	++	++	++	++	++	++	++	++	n.sp.	-	++	n.sp.
Ethylene chloride	+	+	+	++	+	-	-	-	-	n.sp.	n.sp.	++	-	-	-	n.sp.
Ethanol 96%	++	++	++	+	+	++	++	++	++	++	++	++	n.sp.	++	++	-
Edible fats/oils	++	++	++	++	++	++	++	++	++	++	++	++	n.sp.	++	n.sp.	++
F Formaldehyde, watery 30%	++	++	++	+	+	++	++	n.sp.	n.sp.	++	++	++	++	++	++	-
Formic acid, watery 10%	++	++	++	-	-	-	-	+	-	++	++	++	++	+	+	++
Formamide	+	+	+	++	+	++	+	++	++	n.sp.	++	++	n.sp.	n.sp.	n.sp.	n.sp.
Freon, Frigen liquid	+	+	+	++	++	n.sp.	++	++	++	n.sp.	-	++	+	-	n.sp.	+
Fruit juices	++	++	++	++	++	++	+	++	++	++	++	++	++	+	++	++
G Glysantine, watery 40%	++	++	++	++	++	++	++	++	++	++	++	++	n.sp.	+	++	n.sp.
Glycol	++	++	++	++	++	+	+	+	+	++	++	++	++	++	++	n.sp.
Glycerine	++	++	++	++	++	++	++	++	++	++	++	++	++	-	++	++
H Heating oil	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	n.sp.
Heptane, Hexane	-	-	-	++	++	++	++	++	++	++	++	++	++	++	++	++

Legend

++ = good to very good resistance + = resistant - = not resistant n.sp. = not specified

page 2 / 5

All information based on current knowledge and experience. Information provided shall not exempt the contractor or user from conducting own tests. A legally binding warranty as to product features or its suitability for specific purposes may not be derived therefrom. Compliance with any proprietary rights as well as existing laws or regulations is the responsibility of the recipient of our products. No liability assumed for printing and any other errors. Technical data subject to change without notice. Reproduction or duplication of this document or its contents - whole or in part - is only permitted with express approval by company noltewerk. As of 1021.



plastics

Technical information

Chemical resistance of plastics

Material Chemical	PE 300	PE 500	PE 1000	PA 6.6	PA 12	POM- C	POM- H	PET	PET- P	PVDF	PEEK	PTFE	ABS	PC	PETG	PMMA
Hydrofluoric acid 40%	++	++	++	-	-	-	-	-	-	++	-	+	+	-	-	-
Hydrochloric acid, watery 2%	++	++	++	-	+	-	-	++	++	++	++	++	++	++	++	++
Hydrochloric acid, watery 36%	++	++	++	-	-	-	-	-	-	++	++	n.sp.	++	-	-	++
Hydrogen sulphide, watery	++	++	++	++	++	++	n.sp.	++	++	++	++	++	-	++	++	++
Hydrogen peroxide, watery 0.5%	++	++	++	-	-	++	+	++	++	++	++	++	++	++	++	+
Hydrogen peroxide, watery 30%	++	++	++	-	-	-	-	++	++	+	n.sp.	++	n.sp.	++	++	+
I Iso-octane	++	++	++	++	++	n.sp.	++	n.sp.	n.sp.	n.sp.	++	++	++	+	++	n.sp.
Isopropyl	++	++	++	++	+	++	++	+	+	++	++	++	+	++	++	+
Iodine tincture, alcoholic	++	++	++	-	-	n.sp.	+	n.sp.	n.sp.	++	+	++	+	-	n.sp.	-
L Linseed oil	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	n.sp.
Lactic acid, watery 90%	++	++	++	-	+	++	-	++	n.sp.	++	++	++	-	++	n.sp.	-
Lactic acid, watery 10%	++	++	++	++	++	++	+	n.sp.	++	++	++	++	++	++	+	++
M Methanol	++	++	++	++	+	++	++	++	++	+	++	++	+	-	++	+
Methyl- ethyl ketone	+	+	+	++	++	+	+	+	+	+	++	++	-	-	-	-
Methylene-chloride	+	+	+	+	-	+	+	-	-	++	++	++	-	-	n.sp.	-
Milk	++	++	++	++	++	++	++	n.sp.	++	++	++	++	++	++	++	++
N Nitric acid, aqueous 2%	++	++	++	-	-	-	-	++	++	++	++	++	++	++	++	++
Nitrobenzene	++	++	++	-	-	+	+	+	+	+	+	++	-	-	-	-

Legende

++ = good to very good resistance + = resistant - = not resistant n.sp. = not specified

All information based on current knowledge and experience. Information provided shall not exempt the contractor or user from conducting own tests. A legally binding warranty as to product features or its suitability for specific purposes may not be derived therefrom. Compliance with any proprietary rights as well as existing laws or regulations is the responsibility of the recipient of our products. No liability assumed for printing and any other errors. Technical data subject to change without notice. Reproduction or duplication of this document or its contents - whole or in part - is only permitted with express approval by company noltewerk. As of 1021.



Technical information

Chemical resistance of plastics

Material Chemical		PE	PE	PE	PA	PA	POM-	POM-	PET	PET-	PVDF	PEEK	PTFE	ABS	PC	PETG	PMMA	
		300	500	1000	6.6	12	C	H		P								
O	Oxalic acid, watery 10%	++	++	++	+	+	-	n.sp.	++	++	++	++	++	++	++	++	++	
	Ozone	+	+	+	-	-	-	-	+	+	++	++	++	n.sp.	++	n.sp.	++	
P	Paraffin oil	++	++	++	++	n.sp.	++	++	++	++	++	++	++	++	+	++	++	
	Perchloroethylene	-	-	-	+	-	+	+	+	+	++	++	++	+	-	-	+	
	Petroleum	++	++	++	++	++	++	++	++	++	++	++	++	+	-	++	++	
	Phenol, watery	++	++	++	-	-	-	-	-	-	++	+	++	+	-	-	-	
	Phosphoric acid, concentrated	++	++	++	-	-	n.sp.	n.sp.	++	++	++	++	++	++	++	n.sp.	-	
	Phosphoric acid, watery 10%	++	++	++	-	-	+	-	++	++	++	++	++	++	++	n.sp.	++	
	Propanol	++	++	++	++	-	++	++	++	++	++	++	++	++	++	++	++	+
	Pyridine	+	+	+	++	+	+	+	n.sp.	+	+	++	++	++	-	-	n.sp.	-
	Potassium bi-chromate, watery 10%	++	++	++	++	+	++	+	++	++	++	n.sp.	++	++	++	-	n.sp.	
	Potassium-permanganate, watery 1%	++	++	++	-	-	++	++	++	++	++	++	+	+	++	++	++	
S	Sodium carbonate, watery 10%	++	++	++	++	++	++	+	++	++	++	++	++	++	++	++	++	
	Sodium chloride, watery 10%	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	
	Sodium disulphite, watery 10%	++	++	++	++	++	-	-	++	++	++	++	++	++	++	++	n.sp.	
	Sodium nitrate, watery 10%	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	n.sp.	
	Sodium thiosulfate, watery 10%	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	
	Salicylic acid	++	++	++	++	++	n.sp.	-	+	+	++	-	++	++	++	++	n.sp.	
	Sulphuric acid, concentrated 98%	+	+	+	-	-	-	-	-	-	+	-	++	-	-	-	-	

Legend

++ = good to very good resistance + = resistant - = not resistant n.sp. = not specified

All information based on current knowledge and experience. Information provided shall not exempt the contractor or user from conducting own tests. A legally binding warranty as to product features or its suitability for specific purposes may not be derived therefrom. Compliance with any proprietary rights as well as existing laws or regulations is the responsibility of the recipient of our products. No liability assumed for printing and any other errors. Technical data subject to change without notice. Reproduction or duplication of this document or its contents - whole or in part - is only permitted with express approval by company noltewerk. As of 1021.



Technical information

Chemical resistance of plastics

Material	PE 300	PE 500	PE 1000	PA 6.6	PA 12	POM-C	POM-H	PET	PET-P	PVDF	PEEK	PTFE	ABS	PC	PETG	PMMA
Sulphuric acid, watery 2%	++	++	++	-	-	++	-	++	++	++	++	++	++	++	n.sp.	++
Soap solution, watery	++	++	++	++	++	++	++	++	++	++	++	++	n.sp.	++	++	n.sp.
Silicone oil	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	+
Soda solution, watery 10%	++	++	++	++	++	n.sp.	++	++	++	++	n.sp.	++	++	++	++	n.sp.
Styr	+	+	+	++	++	++	++	+	+	+	++	++	n.sp.	-	++	n.sp.
T Tar	n.sp.	n.sp.	n.sp.	+	+	++	++	++	++	n.sp.	++	++	n.sp.	-	++	n.sp.
Tartaric acid	++	++	++	++	++	+	+	++	++	++	++	++	++	++	n.sp.	++
Tetrahydrofuran	+	+	+	++	++	+	+	+	+	+	++	++	-	-	++	-
Tetralin	+	+	+	++	++	+	n.sp.	++	++	n.sp.	++	++	-	-	++	n.sp.
Toluene	+	+	+	++	++	++	+	+	+	++	++	++	-	-	++	-
Transformer oil	++	++	++	++	++	++	++	++	++	++	++	++	n.sp.	-	++	n.sp.
Triethanolamine	++	++	++	++	++	++	-	++	++	+	+	++	++	+	++	n.sp.
Trichloroethylene	+	+	+	+	+	-	-	-	-	++	++	++	-	-	-	-
U Urea, watery	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++
V Vaseline	+	+	+	++	++	++	++	++	++	++	++	++	++	++	++	n.sp.
W Wax, melted	+	+	+	++	++	++	++	++	++	++	++	++	n.sp.	++	++	++
Water, cold	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++
Water, warm	+	+	+	+	+	+	-	-	-	++	++	++	++	++	++	++
Wine, brandy	++	++	++	+	+	++	++	++	++	++	++	++	++	++	++	n.sp.
X Xylene	-	-	-	++	+	++	++	+	+	++	++	++	-	-	n.sp.	-
Z Zinc chloride, watery 10%	++	++	++	+	+	++	-	++	++	++	++	++	++	+	n.sp.	-

Legend

++ = good to very good resistance + = resistant - = not resistant n.sp. = not specified

All information based on current knowledge and experience. Information provided shall not exempt the contractor or user from conducting own tests. A legally binding warranty as to product features or its suitability for specific purposes may not be derived therefrom. Compliance with any proprietary rights as well as existing laws or regulations is the responsibility of the recipient of our products. No liability assumed for printing and any other errors. Technical data subject to change without notice. Reproduction or duplication of this document or its contents - whole or in part - is only permitted with express approval by company noltewerk. As of 1021.

