

Невареактив

technical manual

MANUALE TECNICO
TECHNICAL MANUAL
MANUEL TECHNIQUE



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ABBREVIAZIONI, TEMPERATURE
E RESISTENZE CHIMICHE DELLE
MATERIE PLASTICHE

La tabella seguente elenca le abbreviazioni delle materie plastiche più comunemente usate per la fabbricazione dei prodotti da laboratorio.

Le temperature tra parentesi rappresentano i limiti tollerati solo per brevi periodi di tempo.

ABBREVIATIONS, TEMPERATURE
AND CHEMICAL RESISTANCE OF
PLASTICS

The table below lists commonly used abbreviations for plastics. This list covers plastics commonly employed in the manufacture of plastic laboratory ware.

Temperatures appearing in parentheses: limits tolerated for intervals only.

ABREVIATIONS, TEMPERATURES
ET RESISTANCES CHIMIQUES
DES MATERIES PLASTIQUES

Le tableau suivant comprend les abréviations plus communes des matières plastiques dans le domaine de la production des articles pour laboratoire.

Les températures entre parenthèses représentent les limites des résistances pendant périodes de temps brefs.

Abbreviazioni DIN - Abbrev. Abréviations	Denominazione chimica Chemical designation Dénomination chimique	Campo di temperatura comunemente tollerato Tolerated temperature range in normal use Résistance températures pour utilisation normale
		da / from / de a / to / à
ABS	Acrilobutadiene-stirene cop. Acrylobutadiene-styrene copolymer Copolymère Acrylonitrile Butadiène Styrene	- 40°C + 85 (100)°C
HDPE	PE Alta Densità High-density PE PE Haute Densité	- 50°C + 80 (120)°C
LDPE	PE Bassa Densità Low-density PE PE Basse Densité	- 50°C + 75 (90)°C
PA	Poliammide (PA6) Polyamide (PA6) Polyamide (PA6)	- 30°C + 80 (140)°C
PC	Policarbonato Polycarbonate Polycarbonate	-100 °C +135 (140)°C
PE	Polietilene (HDPE/LDPE) PE (cf. HDPE/LDPE) PE (HDPE/LDPE)	- 40°C + 80 (90)°C
PMP (Tpx®)	Polimetilpentene Polymethylpentene Polyméthylpentène	0°C +120 (180)°C
PMMA	Polimetilmetacrilato Polymethylmethacrylate Polyméthacrylate	- 40°C + 85 (90)°C
POM	Poliossimetilene Polyoxymethylene Polyoxyméthylène	- 40°C + 90 (110)°C
PP	Polipropilene Plypropylene Polypropylène	- 10°C +120 (140)°C
PS	Polistirene Polystyrene Pstryène	- 10°C + 70 (80)°C
SAN	Stirene-Acrilonitrile Styrene-acrylonitrile Styrene-acrylonitrile	- 20°C + 85 (95)°C
SI	Gomma Silicone Silicone rubber Gomme Silicone	- 50°C +180 (250)°C
PVDF	Fluoruro di Polivinilidene Polyvinylidenefluoride Polyvinylidénfluoride	- 40°C +105 (150)°C
PTFE	Politetrafluoroetilene Polytetrafluoroethylene Polytetrafluoréthylène	- 200°C + 260°C
E-CTFE	Etilene-Chlortrifluoroetilene Ethylene-Chlorotrifluoroethylene Ethylique-Chlorotrifluoroéthylène	- 76°C +150 (170)°C
ETFE	Etilene-Tetrafluoroetilene Ethylene-tetrafluoroethylene Ethylique-Tetrafluoréthylène	- 100°C + 150 (180)°C
PFA	Perfluoroolclossido Perfluorooalkoxy Perfluoralkoxy	- 200°C + 260°C
FEP	Tetrafluoretilene-Perfluoropropilene Tetrafluoroethylene-perfluoropropylene Tetrafluoréthylène-Perfluoropropylène	- 200°C + 205°C
PVC	Cloruro di Polivinile Polyvinylchloride Polyvinylchloride	- 20°C + 80°C
PUR	Poluiretano Polyurethane Polyuréthane	-40°C +90°C

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RESISTENZE CHIMICHE DELLE
MATERIE PLASTICHE PER
TIPOLOGIE DI PRODOTTI CHIMICI

LIST OF PLASTICS AND THEIR
CHEMICAL RESISTANCES TO
SUBSTANCE GROUPS

RESISTANCES CHIMIQUES DES
MATIERES PLASTIQUES PAR
TYPOLOGIES DES PRODUITS
CHIMIQUES

Tipologie di prodotti chimici Substance Group, at +20°C Typologies des substances PFA chimiques	LDPE	HDPE	PP	PMP Tpx®	PTFE FEP PFA	ECTFE ETFE	PA	PA
Alcoli alifatici Alcohols aliphatic Alcools aliphatiques	●	●	●	●	●	●	●	●
Aldeidi Aldehydes Aldehydes	●	●	●	●	●	●	●	●
Alcali Alkalies Alkalies	●	●	●	●	●	●	●	●
Esteri Esters Esters	●	●	●	●	●	●	●	●
Idrocarburi alifatici, Hydrocarbons, aliphatic Hydrocarbures aliphatiques	●	●	●	●	●	●	●	●
Idrocarburi aromatici Hydrocarbons, aromatic Hydrocarbures aromatiques	●	●	●	●	●	●	●	●
Idrocarburi alogenati Hydrocarbons, halogenated Hydrocarbures halogenes	●	●	●	●	●	●	●	●
Ketoni Ketones Ketons	●	●	●	●	●	●	●	●
Ossidanti (acidi) forti Oxidants (oxidizing acids), strong Oxydants (Acides oxydants) forts	●	●	●	●	●	●	●	●
Acidi deboli diluiti Acids, diluted, weak Acides dilués, faibles	●	●	●	●	●	●	●	●
Acidi forti concentrati Acids, conc., strong Acides concentrés, forts	●	●	●	●	●	●	●	●

● Resistenza elevata.
High resistance.
Résistance excellent.

● Resistenza buona; nessun o minimo attacco per un'esposizione di oltre 30 giorni.
Good resistance; no, or only minor, damage resulting from exposures of more than 30 days.
Bonne résistance; aucun ou attaque minimale après 30 jours d'exposition.

● Resistenza scarsa; un'esposizione prolungata può causare danni ad alcuni tipi di plastica.
Marginal resistance; for some types of plastics, extended exposure can result in damage (hairline cracks, loss of mechanical strength, discolouration, etc.).
Résistance insuffisant; l'exposition prolongée peut provoquer des dégâts à certains types de plastique.

● Resistenza nulla; il contatto può causare deformazioni o forte degrado del materiale.
Non resistant; exposure can lead to deformation or destruction.
Résistance nulle; le contact peut provoquer déformations ou graves dommages à la matière.

PLASTICHE "PULITE" ED
ECOLOGICHE

"CLEAN" AND ECOLOGICAL
PLASTICS

PLASTIQUE "PROPRE" ET
ECOLOGIQUE

L'innovazione tecnologica ed il progressivo adeguamento ai più elevati standard di eco-compatibilità, ha reso i materiali plastici primari utilizzati da Kartell Labware all'avanguardia. Infatti i materiali plastici utilizzati godono di numerose compatibilità; di seguito ricordiamo alcune delle conformità possedute, in relazione alle loro caratteristiche.

- Idoneità al contatto con alimenti (Direttiva Nazionale ed Europea CE 1935/2004)
- Idoneità al contatto con alimenti (US FDA CFR 170/199)
- PTFE: idoneità al contatto con alimenti (FDA CFR TITLE 177.1550)
- Assenza o limitazione secondo le Direttive Internazionali di: metalli pesanti, bifenili e ftalati
- Idoneità alla Direttiva RoHS
- Idoneità alle Direttive relative alla BSE e/o TSE
- Idoneità alle Direttive Atex

Kartell Labware promuove la ricerca nel campo dei materiali plastici, attraverso il contatto diretto con i più affermati Produttori Mondiali e la ricerca di materiali innovativi. Ricordiamo che le plastiche Kartell Labware, se non chimicamente contaminate, sono totalmente riciclabili.

Thanks to technological innovation and progressive adaptation to the most elevated eco-compatibility standards, Kartell plastic raw material are of excellent quality. In fact the used plastic materials grant wide compatibilities; hereunder you can find some standards conformities related to their characteristics.

L' innovation technologique et la progressive adaptation aux plus élevés standards d'éco-compatibilité, a rendu les matières premières plastiques utilisées par Kartell Labware à l'avant-garde. En effet les matières plastiques utilisées garantissent de nombreuses compatibilités; ci-dessous quelques conformités aux normes internationales liées à leurs caractéristiques.

- Conformité au contact alimentaire (Directives Nationales et Européennes CE 1935/2004)
- Conformité au contact alimentaire (US FDA CFR 170/199)
- PTFE: foodstuff contact suitable (FDA CFR TITLE 177.1550)
- Absence or limitation according the International Directives of heavy metals, biphenyls and phthalates
- RoHS Directives Conformity
- BSE and/or TSE Directives Conformity
- Atex Directives Conformity

Kartell Labware promotes the research in the field of the plastic materials, through the direct contact with the most important worldwide raw materials manufacturers and the research of innovative materials. We would like to underline that Kartell Labware materials, if not chemically contaminated, are totally recyclable

Kartell Labware promeut la recherche dans le champ des matières plastiques, à travers le contacte directe avec les Producteurs plus affirmés dans le monde et la recherche de matières nouvelles. Nous voudrions souligner que les matières plastiques Kartell, non chimiquement contaminées, sont totalement recyclables

RESISTENZA CHIMICA

CHEMICAL RESISTANCE

RÉSISTANCE CHIMIQUE

I dati relativi alla resistenza chimica dei sali si applicano anche alle loro soluzioni acquose.

Data for the chemical resistance of salts also apply to their aqueous solutions.

Les données pour la résistance chimique des sels s'appliquent également à leurs solutés.

● Resistenza chimica: eccellente.
Chemical resistance: excellent.
Resistance chimique: excellent.

● Resistenza chimica: da buona a limitata.
Chemical resistance: between good and limited.
Résistance chimique: entre bonne et suffisant.

● Resistenza chimica: insufficiente.
Chemical resistance: poor.
Résistance chimique: pauvre.

PP	PMP	ECTFE/ETFE	PTFE	FEP/PFA	FKM	EPDM	NR	SI	
20° C	50° C	20° C	50° C	20° C	50° C	20° C	50° C	20° C	50° C
●	●	●	●	●	●	●	●	●	Acetaldehyde
●	●	●	●	●	●	●	●	●	Acetic acid 50%
●	●	●	●	●	●	●	●	●	Acetic acid (glacial) 100%
●	●	●	●	●	●	●	●	●	Acetic anhydride
●	●	●	●	●	●	●	●	●	Acetone
●	●	●	●	●	●	●	●	●	Acetonitrile
●	●	●	●	●	●	●	●	●	Acetophenone
●	●	●	●	●	●	●	●	●	Acetylacetone
●	●	●	●	●	●	●	●	●	Acetylchloride
●	●	●	●	●	●	●	●	●	Acrylic acid
●	●	●	●	●	●	●	●	●	Acrylonitrile
●	●	●	●	●	●	●	●	●	Adipic acid
●	●	●	●	●	●	●	●	●	Allyl alcohol
●	●	●	●	●	●	●	●	●	Aluminium chloride
●	●	●	●	●	●	●	●	●	Aluminium hydroxide
●	●	●	●	●	●	●	●	●	Amino acids
●	●	●	●	●	●	●	●	●	Ammonium chloride
●	●	●	●	●	●	●	●	●	Ammonium fluoride
●	●	●	●	●	●	●	●	●	Ammonium hydroxide 30%
●	●	●	●	●	●	●	●	●	Ammonium sulphate
●	●	●	●	●	●	●	●	●	n-Amyl acetate
●	●	●	●	●	●	●	●	●	n-Amyl alcohol (Pentanol)
●	●	●	●	●	●	●	●	●	Amyl chloride
●	●	●	●	●	●	●	●	●	Aniline
●	●	●	●	●	●	●	●	●	Aqua regia
●	●	●	●	●	●	●	●	●	Barium chloride
●	●	●	●	●	●	●	●	●	Benzaldehyde
●	●	●	●	●	●	●	●	●	Benzene (Benzol)
●	●	●	●	●	●	●	●	●	Benzine (Gasoline)
●	●	●	●	●	●	●	●	●	Benzoyl chloride
●	●	●	●	●	●	●	●	●	Benzyl alcohol
●	●	●	●	●	●	●	●	●	Benzyl chloride
●	●	●	●	●	●	●	●	●	Benzylamine
●	●	●	●	●	●	●	●	●	Boric acid, 10%
●	●	●	●	●	●	●	●	●	Bromide
●	●	●	●	●	●	●	●	●	Bromobenzene
●	●	●	●	●	●	●	●	●	Bromoform
●	●	●	●	●	●	●	●	●	Bromonaphthalene
●	●	●	●	●	●	●	●	●	Butanediol
●	●	●	●	●	●	●	●	●	1-Butanol (Butyl alcohol)
●	●	●	●	●	●	●	●	●	n-Butyl acetate
●	●	●	●	●	●	●	●	●	Butylamine
●	●	●	●	●	●	●	●	●	Butyl methyl ether
●	●	●	●	●	●	●	●	●	Butyric acid
●	●	●	●	●	●	●	●	●	Calcium carbonate
●	●	●	●	●	●	●	●	●	Calcium chloride
●	●	●	●	●	●	●	●	●	Calcium hydroxid
●	●	●	●	●	●	●	●	●	Calcium hypochlorite
●	●	●	●	●	●	●	●	●	Carbon disulphide
●	●	●	●	●	●	●	●	●	Carbon tetrachloride
●	●	●	●	●	●	●	●	●	Chloro naphthalene
●	●	●	●	●	●	●	●	●	Chloroacetaldehyde
●	●	●	●	●	●	●	●	●	Chloroacetic acid
●	●	●	●	●	●	●	●	●	Chloroacetone
●	●	●	●	●	●	●	●	●	Chlorobenzene
●	●	●	●	●	●	●	●	●	Chlorobutano
●	●	●	●	●	●	●	●	●	Chloroform
●	●	●	●	●	●	●	●	●	Chlorosulfonic acid
●	●	●	●	●	●	●	●	●	Chromic acid 10%
●	●	●	●	●	●	●	●	●	Chromic acid 50%
●	●	●	●	●	●	●	●	●	Chromosulphuric acid
●	●	●	●	●	●	●	●	●	Copper sulfate
●	●	●	●	●	●	●	●	●	Cresol
●	●	●	●	●	●	●	●	●	Cumene (Isopropyl benzene)
●	●	●	●	●	●	●	●	●	Cyclohexane
●	●	●	●	●	●	●	●	●	Cyclohexanone
●	●	●	●	●	●	●	●	●	Cyclopentane
●	●	●	●	●	●	●	●	●	Decane
●	●	●	●	●	●	●	●	●	Decanol
●	●	●	●	●	●	●	●	●	Dibenzyl ether

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	PS	SAN	PMMA	PC	PVC	POM	PE-LD	PE-HD				
	20° C	50° C										
Dibromoethane	●	●	●	●	●	●	●	●	●	●	●	●
Dibutyl phthalate	●	●	●	●	●	●	●	●	●	●	●	●
Dichlorobenzene	●	●	●	●	●	●	●	●	●	●	●	●
Dichloromethane (Methylene chloride)	●	●	●	●	●	●	●	●	●	●	●	●
Dichloroacetic acid	●	●	●	●	●	●	●	●	●	●	●	●
Dichloroethane	●	●	●	●	●	●	●	●	●	●	●	●
Diesel oil	●	●	●	●	●	●	●	●	●	●	●	●
Diethanolamine	●	●	●	●	●	●	●	●	●	●	●	●
Diethyl ether	●	●	●	●	●	●	●	●	●	●	●	●
Diethylamine	●	●	●	●	●	●	●	●	●	●	●	●
Diethylbenzene	●	●	●	●	●	●	●	●	●	●	●	●
Diethylene glycol	●	●	●	●	●	●	●	●	●	●	●	●
Dimethylaniline	●	●	●	●	●	●	●	●	●	●	●	●
Dimethylformamide (DMF)	●	●	●	●	●	●	●	●	●	●	●	●
Dimethyl sulfoxide (DMSO)	●	●	●	●	●	●	●	●	●	●	●	●
1,4 Dioxane	●	●	●	●	●	●	●	●	●	●	●	●
Diphenyl ether	●	●	●	●	●	●	●	●	●	●	●	●
Ethanol (Ethyl alcohol)	●	●	●	●	●	●	●	●	●	●	●	●
Ethanolamine	●	●	●	●	●	●	●	●	●	●	●	●
Ethyl acetate	●	●	●	●	●	●	●	●	●	●	●	●
Ethyl methyl ketone	●	●	●	●	●	●	●	●	●	●	●	●
Ethylbenzene	●	●	●	●	●	●	●	●	●	●	●	●
Ethylene chloride	●	●	●	●	●	●	●	●	●	●	●	●
Ethylene glycol (Glycol)	●	●	●	●	●	●	●	●	●	●	●	●
Ethylene oxide	●	●	●	●	●	●	●	●	●	●	●	●
Fluoroacetic acid	●	●	●	●	●	●	●	●	●	●	●	●
Formaldehyde 40%	●	●	●	●	●	●	●	●	●	●	●	●
Formamide	●	●	●	●	●	●	●	●	●	●	●	●
Formic acid 98-100%	●	●	●	●	●	●	●	●	●	●	●	●
Glycerol	●	●	●	●	●	●	●	●	●	●	●	●
Glycolic acid 70%	●	●	●	●	●	●	●	●	●	●	●	●
Heating oil	●	●	●	●	●	●	●	●	●	●	●	●
Heptane	●	●	●	●	●	●	●	●	●	●	●	●
Hexane	●	●	●	●	●	●	●	●	●	●	●	●
Hexanoic acid	●	●	●	●	●	●	●	●	●	●	●	●
Hexanol	●	●	●	●	●	●	●	●	●	●	●	●
Hydriodic acid	●	●	●	●	●	●	●	●	●	●	●	●
Hydrobromic acid	●	●	●	●	●	●	●	●	●	●	●	●
Hydrochloric acid 10%	●	●	●	●	●	●	●	●	●	●	●	●
Hydrochloric acid 20%	●	●	●	●	●	●	●	●	●	●	●	●
Hydrochloric acid 37%	●	●	●	●	●	●	●	●	●	●	●	●
Hydrofluoric acid 40%	●	●	●	●	●	●	●	●	●	●	●	●
Hydrofluoric acid 70%	●	●	●	●	●	●	●	●	●	●	●	●
Hydrogen peroxide 35%	●	●	●	●	●	●	●	●	●	●	●	●
Iodine / potassium iodine solution	●	●	●	●	●	●	●	●	●	●	●	●
Iso octane	●	●	●	●	●	●	●	●	●	●	●	●
Isoamyl alcohol	●	●	●	●	●	●	●	●	●	●	●	●
Isobutanol (Isobutyl alcohol)	●	●	●	●	●	●	●	●	●	●	●	●
Isopropanol (2-Propanol)	●	●	●	●	●	●	●	●	●	●	●	●
Isopropyl ether	●	●	●	●	●	●	●	●	●	●	●	●
Lactic acid	●	●	●	●	●	●	●	●	●	●	●	●
Mercury	●	●	●	●	●	●	●	●	●	●	●	●
Mercury chloride	●	●	●	●	●	●	●	●	●	●	●	●
Methanol	●	●	●	●	●	●	●	●	●	●	●	●
Methoxybenzene	●	●	●	●	●	●	●	●	●	●	●	●
Methyl butyl ether	●	●	●	●	●	●	●	●	●	●	●	●
Methyl formate	●	●	●	●	●	●	●	●	●	●	●	●
Methyl propyl ketone	●	●	●	●	●	●	●	●	●	●	●	●
Methylene chloride (Dichloro methane)	●	●	●	●	●	●	●	●	●	●	●	●
Minerale oil (Engine oil)	●	●	●	●	●	●	●	●	●	●	●	●
Monochloroacetic acid	●	●	●	●	●	●	●	●	●	●	●	●
Nitric acid 10%	●	●	●	●	●	●	●	●	●	●	●	●
Nitric acid 30%	●	●	●	●	●	●	●	●	●	●	●	●
Nitric acid 70%	●	●	●	●	●	●	●	●	●	●	●	●
Nitrobenzene	●	●	●	●	●	●	●	●	●	●	●	●
Oleic acid	●	●	●	●	●	●	●	●	●	●	●	●
Oxalic acid	●	●	●	●	●	●	●	●	●	●	●	●
Phenol	●	●	●	●	●	●	●	●	●	●	●	●
Perchloric acid	●	●	●	●	●	●	●	●	●	●	●	●

● Resistenza chimica: eccellente.
Chemical resistance: excellent.
Resistance chimique: excellent.

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Chemical resistance: between good and limited.
Résistance chimique: entre bonne et suffisant.

● Resistenza chimica: insufficiente.
Chemical resistance: poor.
Résistance chimique: pauvre.

PP	PMP	ECTFE/ETFE	PTFE	FEP/PFA	FKM	EPDM	NR	SI	
20° C	50° C	20° C	50° C	20° C	50° C	20° C	50° C	20° C	
●	●	●	●	●	●	●	●	●	Dibromoethane
●	●	●	●	●	●	●	●	●	Dibutyl phthalate
●	●	●	●	●	●	●	●	●	Dichlorobenzene
●	●	●	●	●	●	●	●	●	Dichloromethane (Methylene chloride)
●	●	●	●	●	●	●	●	●	Dichloroacetic acid
●	●	●	●	●	●	●	●	●	Dichloroethane
●	●	●	●	●	●	●	●	●	Diesel oil
●	●	●	●	●	●	●	●	●	Diethanolamine
●	●	●	●	●	●	●	●	●	Diethyl ether
●	●	●	●	●	●	●	●	●	Diethylamine
●	●	●	●	●	●	●	●	●	Diethylbenzene
●	●	●	●	●	●	●	●	●	Diethylene glycol
●	●	●	●	●	●	●	●	●	Dimethylaniline
●	●	●	●	●	●	●	●	●	Dimethylformamide (DMF)
●	●	●	●	●	●	●	●	●	Dimethyl sulfoxide (DMSO)
●	●	●	●	●	●	●	●	●	1,4 Dioxane
●	●	●	●	●	●	●	●	●	Diphenyl ether
●	●	●	●	●	●	●	●	●	Ethanol (Ethyl alcohol)
●	●	●	●	●	●	●	●	●	Ethanolamine
●	●	●	●	●	●	●	●	●	Ethyl acetate
●	●	●	●	●	●	●	●	●	Ethyl methyl ketone
●	●	●	●	●	●	●	●	●	Ethylbenzene
●	●	●	●	●	●	●	●	●	Ethylene chloride
●	●	●	●	●	●	●	●	●	Ethylene glycol (Glycol)
●	●	●	●	●	●	●	●	●	Ethylene oxide
●	●	●	●	●	●	●	●	●	Fluoroacetic acid
●	●	●	●	●	●	●	●	●	Formaldehyde 40%
●	●	●	●	●	●	●	●	●	Formamide
●	●	●	●	●	●	●	●	●	Formic acid 98-100%
●	●	●	●	●	●	●	●	●	Glycerol
●	●	●	●	●	●	●	●	●	Glycolic acid 70%
●	●	●	●	●	●	●	●	●	Heating oil
●	●	●	●	●	●	●	●	●	Heptane
●	●	●	●	●	●	●	●	●	Hexane
●	●	●	●	●	●	●	●	●	Hexanoic acid
●	●	●	●	●	●	●	●	●	Hexanol
●	●	●	●	●	●	●	●	●	Hydroiodic acid
●	●	●	●	●	●	●	●	●	Hydrobromic acid
●	●	●	●	●	●	●	●	●	Hydrochloric acid 10%
●	●	●	●	●	●	●	●	●	Hydrochloric acid 20%
●	●	●	●	●	●	●	●	●	Hydrochloric acid 37%
●	●	●	●	●	●	●	●	●	Hydrofluoric acid 40%
●	●	●	●	●	●	●	●	●	Hydrofluoric acid 70%
●	●	●	●	●	●	●	●	●	Hydrogen peroxide 35%
●	●	●	●	●	●	●	●	●	Iodine / potassium iodine solution
●	●	●	●	●	●	●	●	●	Iso octane
●	●	●	●	●	●	●	●	●	Isoamyl alcohol
●	●	●	●	●	●	●	●	●	Isobutanol (Isobutyl alcohol)
●	●	●	●	●	●	●	●	●	Isopropanol (2-Propanol)
●	●	●	●	●	●	●	●	●	Isopropyl ether
●	●	●	●	●	●	●	●	●	Lactic acid
●	●	●	●	●	●	●	●	●	Mercury
●	●	●	●	●	●	●	●	●	Mercury chloride
●	●	●	●	●	●	●	●	●	Methanol
●	●	●	●	●	●	●	●	●	Methoxybenzene
●	●	●	●	●	●	●	●	●	Methyl butyl ether
●	●	●	●	●	●	●	●	●	Methyl formate
●	●	●	●	●	●	●	●	●	Methyl propyl ketone
●	●	●	●	●	●	●	●	●	Methylene chloride (Dichloro methane)
●	●	●	●	●	●	●	●	●	Minerale oil (Engine oil)
●	●	●	●	●	●	●	●	●	Monochloroacetic acid
●	●	●	●	●	●	●	●	●	Nitric acid 10%
●	●	●	●	●	●	●	●	●	Nitric acid 30%
●	●	●	●	●	●	●	●	●	Nitric acid 70%
●	●	●	●	●	●	●	●	●	Nitrobenzene
●	●	●	●	●	●	●	●	●	Oleic acid
●	●	●	●	●	●	●	●	●	Oxalic acid
●	●	●	●	●	●	●	●	●	Ozone
●	●	●	●	●	●	●	●	●	n-Pentane
●	●	●	●	●	●	●	●	●	Peracetic acid

RESISTENZA CHIMICA

CHEMICAL RESISTANCE

RÉSISTANCE CHIMIQUE

I dati relativi alla resistenza chimica dei sali si applicano anche alle loro soluzioni acquose.

Data for the chemical resistance of salts also apply to their aqueous solutions.

Les données pour la résistance chimique des sels s'appliquent également à leurs solutés.

	PS	SAN	PMMA	PC	PVC	POM	PE-LD	PE-HD
	20° C	50° C						
Perchloric acid	●	●	●	●	●	●	●	●
Perchloroethylene	●	●	●	●	●	●	●	●
Petroleum	●	●	●	●	●	●	●	●
Petroleum ether	●	●	●	●	●	●	●	●
Phenol	●	●	●	●	●	●	●	●
Phenylethanol	●	●	●	●	●	●	●	●
Phenyldiazine								●
Phosphoric acid 85%	●	●	●	●	●	●	●	●
Piperidine								
Potassium chloride	●	●	●	●	●	●	●	●
Potassium dichromate								
Potassium hydroxide	●	●	●	●	●	●	●	●
Potassium permanganate	●	●	●	●	●	●	●	●
Propanediol (Propylene glycol)	●	●	●	●	●	●	●	●
Propanol	●	●	●	●	●	●	●	●
Propionic acid	●	●	●	●	●	●	●	●
Pyridine	●	●	●	●	●	●	●	●
Salicylic acid	●	●	●	●	●	●	●	●
Salicylaldehyde	●	●	●	●	●	●	●	●
Silver acetate	●	●	●	●	●	●	●	●
Silver nitrate	●	●	●	●	●	●	●	●
Sodium acetate	●	●	●	●	●	●	●	●
Sodium chloride	●	●	●	●	●	●	●	●
Sodium dichromate	●	●	●	●	●	●	●	●
Sodium fluoride	●	●	●	●	●	●	●	●
Sodium hydroxide	●	●	●	●	●	●	●	●
Sulphuric acid 60%	●	●	●	●	●	●	●	●
Sulphuric acid 98%	●	●	●	●	●	●	●	●
Tartaric acid	●	●	●	●	●	●	●	●
Tetrachloroethylene								
Tetrahydrofuran	●	●	●	●	●	●	●	●
Tetramethylammonium hydroxide								
Toluene	●	●	●	●	●	●	●	●
Trichloroacetic acid	●	●	●	●	●	●	●	●
Trichlorobenzene	●	●	●	●	●	●	●	●
Trichloroethane	●	●	●	●	●	●	●	●
Trichloroethylene	●	●	●	●	●	●	●	●
Trichlorotrifluoro ethane	●	●	●	●	●	●	●	●
Triethanolamine	●	●	●	●	●	●	●	●
Triethylene glycol	●	●	●	●	●	●	●	●
Trifluoro ethane	●	●	●	●	●	●	●	●
Trifluoroacetic acid (TFA)	●	●	●	●	●	●	●	●
Tripropylene glycol	●	●	●	●	●	●	●	●
Turpentine	●	●	●	●	●	●	●	●
Urea	●	●	●	●	●	●	●	●
Xylene	●	●	●	●	●	●	●	●
Zinc chloride	●	●	●	●	●	●	●	●
Zinc sulphate	●	●	●	●	●	●	●	●

● Resistenza chimica: eccellente.
Chemical resistance: excellent.
Resistance chimique: excellent.

● Resistenza chimica: da buona a limitata.
Chemical resistance: between good and limited.
Résistance chimique: entre bonne et suffisant.

● Resistenza chimica: insufficiente.
Chemical resistance: poor.
Résistance chimique: pauvre.

PP	PMP	ECTFE/ETFE	PTFE	FEP/PFA	FKM	EPDM	NR	SI									
20° C	50° C	20° C	50° C	20° C	50° C	20° C	50° C	20° C	50° C	20° C	50° C	20° C	50° C	20° C	50° C		
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Perchloric acid
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Perchloroethylene
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Petroleum
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Petroleum ether
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Phenol
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Phenylethanol
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Phenyldiazine
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Phosphoric acid 85%
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Piperidine
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Potassium chloride
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Potassium dichromate
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Potassium hydroxide
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Potassium permanganate
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Propanediol (Propylene glycol)
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Propanol
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Propionic acid
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Pyridine
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Salicylic acid
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Salicylaldehyde
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Silver acetate
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Silver nitrate
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Sodium acetate
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Sodium chloride
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Sodium dichromate
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Sodium fluoride
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Sodium hydroxide
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Sulphuric acid 60%
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Sulphuric acid 98%
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Tartaric acid
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Tetrachloroethylene
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Tetrahydrofuran
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Tetramethylammonium hydroxide
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Toluene
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Trichloroacetic acid
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Trichlorobenzene
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Trichloroethane
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Trichloroethylene
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Trichlorotrifluoro ethane
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Triethanolamine
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Triethylene glycol
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Trifluoro ethane
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Trifluoroacetic acid (TFA)
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Tripropylene glycol
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Turpentine
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Urea
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Xylene
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Zinc chloride
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Zinc sulphate