kläger	plastik	Maximum concentration	PA FKM	PP FKM	PP EPDM	PA expert-FKM	PP expert-FKM	PP NBR
ALIPHATIC HYDROCARBONS	Propane (liquid)	100%	4	×	×	4	×	×
	Naphtha	100%	✓	×	×	✓	×	×
	Iso-octane	100%	✓	×	×	✓	×	×
	n-Decane	100%	✓	×	×	✓	×	×
	n-Hexane	100%	✓	×	×	✓	×	×
	n-Heptane	100%	✓	×	×	✓	×	×
	n-Pentane	100%	✓	×	×	✓	x	×
	Petroleum	100%	✓	×	×	✓	×	×
AROMATIC HYDROCARBONS	Limonene	100%	✓	×	×	1	×	×
	Hexanaphthene	100%	✓	×	×	✓	×	×
	Benzene	100%	×	×	×	✓	×	×
	Toluene	40%	✓	×	×	✓	×	×
	Naphthalene	100%	<b>√</b>	×	×	✓	×	×
	Xylene	100%	✓	×	×	✓	x	×
PETROLEUM AND DERIVATIVES	Mineral oil	100%	✓	×	×	✓	×	×
	Diesel	100%	✓	×	×	✓	×	×
	Petrol	100%	✓	×	×	✓	×	×
	Kerosene	100%	✓	×	×	✓	×	×
	White spirit	100%	✓	×	×	✓	x	×
ACIDS	Phthalic acid	100%	×	×	✓	×	×	×
	Citric acid	30%	×	✓	✓	×	✓	×
	Phosphoric acid	30%	×	✓	✓	×	✓	×
	Nitric acid	30%	×	×	×	×	✓	×
	Sulphuric acid	10%	×	✓	×	×	✓	×
	Sulphuric acid	94%	×	×	×	×	✓	×
	Acetic acid	5% to 30%	×	×	✓	×	✓	×
	Acetic acid	>30% to 60%	×	×	×	×	✓	×
	Pelargonic acid (substitute for glyphosate)	18%	×	✓	×	×	✓	×
	Silicic acid	100%	×	✓	✓	×	✓	✓
	Oxalic acid	100%	×	✓	✓	×	✓	×
	Formic acid	75%	×	×	✓	×	✓	×
ALCOHOLS	Butanol	100%	✓	✓	×	✓	✓	×
	Propanol	100%	×	✓	×	×	✓	×
	Amyl alcohol	100%	×	✓	×	×	✓	×
	Ethanol	100%	×	✓	×	×	✓	×
	Isopropyl	100%	✓	✓	×	×	✓	×
	Methanol	100%	×	×	✓	×	✓	×
ALKALIES AND KETONES	Acetone	100%	×	×	×	×	×	×
	Sodium hydroxide (caustic soda)	50%	×	×	✓	×	✓	×
	Ammonia	10%	×	×	✓	×	×	×
	Calcium hydroxide	100%	✓	✓	✓	✓	✓	✓
	Rim cleaner extremely alkaline	10%	×	×	✓	×	×	×
	Potassium hydroxide (caustic potash)	30%	×	×	✓	×	×	×

✓ ideal× not recommended

UPGRADES & TUNING for better resistance and longer product lifespan available for the Kläger range: ValveGuard elbow piece, pump valve membranes, KXP seals.

Our product experts in Key Account Management and the Chemical Application Center will be happy to give you a personal consultation tailored to your requirements.

SPARE PARTS AND REPAIR KITS are available for all products

## kläger plastik

# SPECIALTIES | SPECIAL VERSIONS

	Maximum				
	concentration	MASTERPIECE LINE ACID+	MASTERPIECE LINE SOLVE+	MASTERPIECE LINE CLEAN+	
	700/	,			
Hydrochloric acid	until 30%	<u> </u>	X	X	
Hydrofluoric acid (fluorhydric acid)	until 5%	✓	X	X	
Solvent-containing mixtures based on hydrocarbons which can		×		,	
be composed of ketones, xylene, toluene and different alcohols		*	•	^	
Solvent-containing mixtures based on hydrocarbons which can			,		
be composed of several different acetates and/or ethers		×	<b>*</b>	×	
Solvent-containing mixtures based on hydrocarbons containing					
proportions of butyl acetate		×	•	×	
Solvent-containing mixtures based on hydrocarbons containing		x	1	x	
proportions of ethyl acetate		*	•	^	
Solvent.containing mixtures based on hydrocarbons containing		×		v	
proportions of glycol ether		*	•	^	
Solvent-containing mixtures based on hydrocarbons containing					
proportions of cyclohexane		x	✓	×	
(e.g., 1-methoxy-2-propanol)					
Turpentine oils		x	✓	x	
Special solvent mixtures containing naphtha		x	✓	x	
Special solvent mixtures containing mineral oil		x	✓	x	
Special petroleum-based solvent mixtures		x	✓	x	
Pure acetone		x	x	<b>√</b>	
Pure methyl ethyl ketone		x	x	✓	
Pure alcohol		x	x	✓	

✓ ideal× not recommended

RESISTANCE EXPERTS

The liquids used on the market change constantly - we conduct research using new plastics, springs and sealing maerials and continually develop our sprayers further.

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Masterpiece Line Solve+	recommended for	high-percentage solvent mixtures made of acetates, ketones (such as 20-50% acetone), xylene, toluene, different alcohols and other partly aggressive chemical substances.
		the most widely used acetates, butyl acetate and ethyl acetate in higher concentrations than were previously possible.
		higher concentrations of glycol ether and cyclohexane.
		special mixtures containing naphtha, mineral oil and petroleum-based solvents.
Masterpiece Line Acid+	recommended for	many inorganic special acids such as mixtures with a composition of up to 30% hydrochloric acid.
		mixtures containing up to 5% hydrofluoric acid.
		mixtures containing certain proportions of hydrochloric acid, hydrofluoric acid and phosphoric acid.
Masterpiece Line Clean+	recommended for	Pure acetone, very frequently used in its pure form as a solvent and cleaning agent
		Pure methyl ethyl ketone (=MEK or 2-butanone)
		Pure alcohol like ethanol, isopropyl alcohol or methanol

## SPECIFIC PRODUCT EXAMPLES

Masterpiece Line Solve+	Brake cleaners with acetate, safety cleaners and cold cleaners, engine cleaners, machine cleaners, parts cleaners, fast-acting degreaser, silicone remover, paint remover, adhesive remover, nitro and wash
	thinners, corrosion protection and rust converters, many other product groups in the solvent sector
Masterpiece Line Acid+	Wheel rim cleaners (acid-based), descaling agents, sanitary and toilet cleaners, swimming pool and pool cleaners, rust bloom remover, cement cleaners, stone and paving stone cleaners
Masterpiece Line Clean+	Acetone cleaner, solvents or cleaning agents consisting of 100% MEK, ethanol, isopropyl alcohol, methanol



### **BRIEF OVERVIEW**

PA FKM	recommended for	most solvent-based liquids (hydrocarbons, mineral oil and petroleum products and their derivatives)
Masterpiece Line Solve+		also suitable for solvents mixed with alcohol (e.g. ethanol) and acetone
PP FKM	recommended for	most acids and many alcohol-based liquids
Masterpiece Line Acid+		also suitable for hydrofluoric acids in concentrations of up to 5% and hydrochloric acids in concentrations of up to $30\%$
PP EPDM	recommended for	most alkalis or lye and ketone, as well as special acids
Masterpiece Line Clean+	recommended for	pure alcohol, pure acetone and pure MEK
PP NBR	recommended for	water-based liquids
PA EPDM / PA expert-EPDM	recommended for	special alcohols (butanol) and pure acetone

<sup>\*</sup>This table is designed as an aid to selecting the right pressure sprayer model, and is continually updated thanks to the help and feedback provided by our customers and end consumers\*

as of January 2024

#### PLEASE NOTE THE FOLLOWING INFORMATION REGARDING RESISTANCE AND PRODUCT LIFESPAN

The information about the chemical resistance of the plastics we use, and of the seals for our compressed air sprayers, is based on the experiences of the respective raw material producers. However, to a significant extent resistance also depends on the mixing ratio or the concentration of the liquid being sprayed, and variable factors such as the temperature of the medium, the ambient temperature and the operating pressure.

This is why the chemical resistance data should be regarded only as a quideline to finding the right device from our range for the best solidity and product lifespan.

When it comes to the world's most aggressive and extreme chemicals, it is considered a very good result if the pressure sprayer lasts for 3 to 6 months.

Kläger Plastik also offers an extensive range of spare part sets and repair kits to extend the product lifespan of its sprayers.

Please note: due to the very different compositions and interactions of the individual substances, we can only make recommendations, not give guarantees, even though many of our products have seen many years of service and are still performing at the highest level.

The Kläger Plastik DEVELOPMENT DEPARTMENT, along with our product experts at the newly founded CHEMICAL APPLICATION CENTER, will help you to choose the most suitable compressed air sprayer for your purpose. This is done by means of resistance tests (live dipping tests and spraying tests). Due to interactions of the individual substances, it is often not possible to guarantee an exact resistance without in-house testing spread over 6-12 months.

Any statements made in this regard are only valid when the product is properly used as specified in the instructions manual.

When a substance is being used for a longer period, or there is a longer period of contact with the substance, greater care should be taken during use.

All of the above information is invalid for substances the user has mixed themselves!