NORRES BAGGERMAN
Leading Performance.

Chemical resistance table Technical Hoses - 1

General information:

Mixing several media may either improve or reduce resistance. Information on resistance therefore always applies to a single medium.

The suitability of any hose for use is also influenced by the operating conditions. These include elevated temperatures, extreme chemical and mechanical stresses, as well as dynamic stresses acting in combination with these.

If plastics come into contact with media to which they are classified as non-resistant in resistance tables, this does not necessarily mean that the product will fail. For example, significant but reversible swelling may lead to a rating of "not resistant" without a product defect occurring.

Where precise information is required, we recommend obtaining it through testing:

- in our laboratory using the relevant medium at the operating temperature
- directly at the point of use.

If no previous experience with the application is available, we will be happy to provide the required test material.

The resistance ratings given are nonbinding and are based on measurements or empirical values obtained from laboratory tests. They serve as a guide only and are subject to change and variation.

Since the operating conditions at the user's site are beyond our control, no guarantee can be given.

Meaning of the ratings:

1 **very good resistance:**
The material is unlikely to be attacked by the medium.

2 **moderate resistance:**
The material is likely to provide satisfactory service for months or even years. However, progressive damage may eventually destroy the material.

3 **limited resistance:**
The material is likely to remain usable to a certain extent with brief, occasional contact or at low concentrations of the medium. With continuous contact, destruction of the material must be expected.

\- **not resistant or soluble:**
Use of the material cannot be recommended, as its mechanical properties deteriorate excessively, the material degrades or it dissolves.

Medium	Ester-PUR		Ether-PUR (FOOD)		Soft PVC		LLDPE (AIRDUC® and PROTAPE)		HDPE + LDPE (CP)		TPE		NEOPRENE®		HYP (=CSM)		VITON®		Silicone		PTFE		PA		ARAMID	
	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	176 °F	68 °F	176 °F	68 °F	176 °F	68 °F	212 °F	68 °F	140 °F	68 °F	212 °F
acetaldehyde, aqueous	2	-	2	-	2	-	1	1	2	3	1	2	3		2	-	2	-			1	1	2	-		
acetamide	-		-		-		1		1		1		2		2		1	2	2		1	1	1	3		
acetic acid 10 %	-		2	3	1	3	1	1	1	3	1		2		2	2	2	-	3	-	1		3	-	1	2
acetic acid 100 %	-		-		-		1		3	-	-		2		2	3	-		-		1		-		1	
acetic acid 3 %	3	-	1	2	1	2	1	1	1	2	1		2		1	1	2	-	3	-	1		3	-	1	2
acetic acid ethyl ester (ethyl acetate)	-		-		-		1	1	2	3	2	-	-		-		3	-	3	-	1		1			
acetic anhydride	-		-		-		1	1	2	-	1	2	2		1	1	-		1		1		-			
acetone	-		-		-		1	1	1	2	2	3	3		2		-		3		1	1	1	2	1	2
acetylacetone	-		-		-		-										-		-		1					
acetylene	1	1	1	1	2	3	1		1		1		1		1	2	1	1	1		1	1	1			
acetylsalicylic acid (Aspirin)					1		1																			
acids, generally (see exact media)	3	-	2	3	1	2	1	1	2	3	2	3	-		1	2	1	1	3	-	1	1	3	-		
acrylic acid ethyl ester	-		-		-						3	-	-		3	-	-		3	-	1		1			
acrylic esters (ethyl acrylate)	-		-		-		-		3		1		-		1		-		2		1		1			
acrylonitrile	-		-		-		1	1	1	1	3	-	3		2	3	3	-	3	-	1		1			
adipic acid, aqueous	3	-	2	3	1	2	1	1	1	1	1	2			1	1	1	1	-		1	1				
air, containing oil → oil																										
air, dry	1	1	1	1	1	1	1	1	1	1	1	1			1	1	1	1	1	1	1	1	1	1		
air, wet → water vapor																										
alcohols, generally (see specific media)	2	-	2	-	2	-	1	1	1	1	1	2	2		1	1	1	2	2	-	1	1	2	-		
aliphatics, generally (see specific media)	1	2	1	2	3	-	1	1	1	2	3	-	-		2	-	1	1	-		1	1	1			
allyl alcohol	3	-	3	-	3	-	1	1	1	2	1	1			1	3	3	-	-		1		3	-		
allyl chloride	-		-		-		-		3	-	2	-			1	-	-		1		1		2			
alum, aqueous	1	2	1	1	1	2	1		1	1	1	1	1		1	1	1	1	2	3	1	1	1			
aluminum acetates, aqueous	-		3		1	1	1	1	1	1	1		1		1		-		-		1		1			
aluminum chloride, 10 %	2	3	1	2	1	1	1	1	1	1	1	2	1		1		1		-		1		1	3		
aluminum fluoride	3	-	3	-	1		1	1	1	1	1		1		1		1		1	3	1		1			
aluminum hydroxide	3	-	2	-	1		1		1	1			1		1		1		1		1		1			
aluminum nitrate	3		2		1		1	1	1	1	1		1		1		1		2		1		1	3		
aluminum phosphates	2		1		1		1	1	1	1	1		1		1		1		1		1					
aluminum sulfate, aqueous	2	-	1	3	1	1	1	1	1	1	1	2	1		1	1	1	1	1		1		1			
amines → see specific media																										
aminoethanols	-		-		-						1		3		3		3		-		1					
ammonia, aqueous 3 %	3	-	1	2	1	1	1	1	1	1	1	1	2		3	-	-		1	1	1		1	1		
ammonia, gaseous	3	-	1	2	1	1	1	1	1	1	1	1	1		2		3	-	1	1	1		1	1		
ammonia, liquid, 100 % (anhydrous)	-		-		1	1	1	1	1	1	1	1	1		3	-	-		1	3	1		1	2		
ammonium acetate, aqueous	-		3	-	1	1	1	1	1	1	1	1			1		-		3	-	1	1	1			
ammonium carbonate, aqueous	-		3	-	1	2	1	1	1	1	1	1	1		1	1	1		2	-	1					
ammonium chloride, aqueous 3 % (salmiac)	1	2	1	2	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1		1			
ammonium diphosphate, aqueous	3		1		1		1						1		1		1		1		1					
ammonium fluorides, aqueous	-		-		1	3	1		1		1	1			1	1	1	2			1	1	1			
ammonium metaphosphate	1		1				2						1		1		1		2		1					
ammonium nitrate, aqueous	3	-	2	-	1	1	1	1	2	1	1	2			1	1	1	1	1		1		1			
ammonium phosphates, aqueous	2	-	2	-	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1		1			
ammonium sulfate	1	-	1	3	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1		1			
ammonium thiocyanate	3		2		1		1										1		1							
amyl alcohols → pentanols													1													
amyl chlorides	-		-		-		-		3	-			-		-		2		-		1		1			
aniline	-		-		-		2		2	3			-		2	3	1	3	3		1		3	-		
aniline hydrochloride	-		-		2	-	1	1	2	3			3		-		-		-		1	1				
animal fat → oil, animal																										
anise oil					-		1	1	3	-			-								1		1			
Anol → cyclohexanol													2													
anone → cyclohexanone													-													
anthraquinonesulfonic acid, aqueous	-		-		1		1		1		1				1		1		-		1					
antifreezes → see specific media																										
antimony chlorides, free of water	-		-		1	1	1	1	1	1	1	1			1	2	1	2	3	-	1		-			
antimony(III) chloride, aqueous	3	-	2	-	1	1	1	1	1	1	1	1	1		1	1	1	1	2	-	1		-			
aqua fortis → nitric acid																										
aqua regia (nitrohydrochloric acid)	-		-		-		-		-		-		3		3		3		3		1		-			
argon	1		1		1		1		1		1		1		1		1		1		1		1			
aromatics, generally (see specific media)	-		-		-		1	1	2	3	3	-	2		3	-	1	3	-		1	1	1			
arsenic acid, aqueous	3	-	3	-	1	2	1	1	1	1	1	1	2		1	1	1	1	2	-	1		1			
asphalt	2	-	2	-	2	3	1	1	2	3	2	-	2		3	-	1	3	3	-	1		1			
ASTM-fuels → gasoline																										
ASTM-oils → oil																										
ATE-brake fluids → brake fluids	-		-		1		1								1		1		3		1					
ATF-oil → oil																										
aviation gasoline → gasoline																										
barium chloride, aqueous	1	3	1	2	1	1	1	1	1	1	1	1	3		1		1		1		1		1			
barium hydroxide, aqueous	3	-	2	3	1	1	1	1	1	1	1	1	3		1	1	1	1	1		1		1			
barium sulfate	1		1		1		1	1	1	1	1		2		1		1		1		1		1			
barium sulfide	3	-	2	3	1		1	1	1	1	1		2		2		1		1		1		1			
basic aluminum acetate → aluminum acetates																										
battery acid → sulfuric acid																										
beef tallow (beef fat) → oil, animal																										
beer	1		1		1	1	1	1	1	1	1		1		1		1		1		1		1			
benzaldehyde	-		-		-		1		3	-	1		-		-		3		-		1		3	-	1	
benzene	-		-		-		1		3	-	-		-		-		2	-	-		1		1		1	
benzoic acid, aqueous	3	-	2	3	1	2	1	1	1	1	1	1	-		1	1	1	1	3	-	1		3	-	2	-
benzyl alcohol	-		-		3	-	1	1	2	3	1	3	3		1		1		1		1		-			
benzyl benzoate	-		-										-		1		1		1		1					
benzyl chloride	-		-		1		2		-		-		-		-		2		2	-	1		1			
bismuth carbonates	1		1		1		1						1				1		1		1					
bitter salt → magnesium sulfate																										

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Medium	Ester-PUR		Ether-PUR (FOOD)		Soft PVC		LLDPE (AIRDUC® and PROTAPE)		HDPE + LDPE (CP)		TPE		NEOPRENE®		HYP (=CSM)		VITON®		Silicone		PTFE		PA		ARAMID	
	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	176 °F	68 °F	176 °F	68 °F	176 °F	68 °F	212 °F	68 °F	140 °F	68 °F	212 °F
bitumen (asphalt)	2	-	2	-	2	3	1	1	2	3	2	-	-		3	-	1		3	-	1		2		1	-		
black liquor (pulp-production)	-		-												1	1	1	1	-		1	1						
blood					1		1		1												1		1					
bone oils	1		1		2				2	3	-		-		-		1	1	2	3	1		1					
borax, aqueous	2	3	1	1	1		1	1	1	1	1		1		1	1	1	1	1		1	1	1					
boric acid, aqueous	2	3	1	2	1	1	1	1	1	1	1	1	1		1	1	1	1	-		1		3	-				
brake fluid, ATE-	-	-	-	-	1		1		1		1		-		1		3		2		1		1					
brake fluid, ATS-	-	-	-	-	1		1		1		1				1		3		2		1		1					
brake fluid, based on glycol ethers	-		-																		1							
brine → sodium chloride																												
bromine	-		-		-		-		-		-		-		3	-	1		-		1		-					
bromine water	-		-		-		-						-		2		1		-		1							
bromobenzene	-		-		-		1	1	2	3	3	-	-		-		-		-		1		3	-				
bromochloromethane	-		-		-		2		-		3	-	-		-		1		-		1		3	-				
butadiene	2	3	1	2	1	1	2		-		3	-	2		1	1	2	3	3	-	1		1					
butane, gaseous	1		1		3	-	3		2	3	3	-	1		1		1		-		1		1					
butane, liquid	1		1		2		1						1		1		1		3		1							
butanediols → butylene glycol																												
butanol → butyl alcohol																												
butanone → methyl ethyl ketone (MEK)																												
butene, liquid	1		1		2		2		-		-		-		-		1		3		1		-					
butter	2		1		2		1	1	1	1	1		2		2		1	1	1		1		1					
buttermilk	2		1		1		1	1	1	1	1		2		2		1	1	1		1		1					
butyl acetates	-		-		-		1	1	3				-		-		-		-		1		1					
butyl alcohol	2	3	2	3	2	3	1	1	1				1		1	1	1	3	2		1		1					
butyl benzoate	1		1										-		-		1		-		1							
butyl carbitol	-		-										3		2		1		2		1							
butyl ether	-		3		1		1						2				-		3		1							
butyl oleate	-		-										-		-		1		1		1							
butyl phenol	-		-		3	-	1	1	2	3					-		2	3	-									
butyl stearate	1		1		1		-						-		2		1		1		1							
butylamine	2		2		-		3						3		-		-		2		1							
butylene glycol, aqueous	1		1		3		1	1	1	1	1	2	-		1	1	2		2		1		2					
butynediol	1		1												2		3				1							
butyraldehyde	-		-				1	1	1				-		3		-		-		1							
butyric acid, aqueous	3	-	2	3	1	3	1	1	2	3			-		3		2		3	-	1		3					
calcium acetate	2		2		1	1	1	1	1				3		2		-		2		1							
calcium bisulfate, aqueous	1		1		1		1						1		1		1		1		1							
calcium bisulfite, aqueous	3		3		1		1						1		1		1		2		1							
calcium carbonate	1		1		1	1	1	1	1	1			1		1		1		1		1		2					
calcium chloride, aqueous 10 %	2	-	1	3	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1		2					
calcium hydroxide, aqueous	1	3	1	2	1	1	1	1	1	1	1		1		1		1		2		1		1					
calcium hypochlorite, aqueous	-		-		1	1	1	1	1	1			3		1		1		3	-	1		-					
calcium nitrate	1		1		1	1	1	1	1	1	1		1		1		1		1		1		1					
calcium oxide (lime)	1		1		1		1		1	1			1		1		1		2		1							
calcium phosphates, aqueous	2		2				1	1	1	1	1				1		1		1		1		3					
calcium sulfate, aqueous	1		1		1		1	1	1	1			2		1		1		1		1		1					
calcium sulfide	1		1		1								1		1		1		2		1							
camphor	-		-				1	1	3	-					3	-	3	-			1		1					
cane sugar → sugar																												
carbitol	-		-		3		1						3		2		2		2		1							
carbolic acid → phenol																												
carbolineum, aqueous	-		-		-		1	1	1				1		-		1		-		1		1					
carbon dioxide, dry	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1				
carbon dioxide, wet (carbonic acid)	2		1		1	1	1		1		1	1	1		1	1	1	1	1		1	1	1					
carbon disulfide	-		-		-		1	1	3	-	-		-		-		1		-		1		2					
carbon oxide (carbon monoxide)	1	1	1	1	1	1	1	1	1	1	1	1	2		1	1	1	1	1		1		1	1				
carbon tetrachloride → chloromethanes													-															
Caro's acid					1		-						-		2													
castor oil	1		1		2	3	1	1	2		2		2		1		1		1		1		1					
caustic potash → potash lye																												
cellulose acetate	1		1				1						1						1		1		1					
CFCs → Freon																												
chloral hydrate, aqueous	-		-		-		1	1	1	1			2		2		3				1		-					
chloramine, aqueous	2		2								1				1		1				1							
chloric acid, aqueous	-		3	-	1	2	1		2	3	-		1		1	3	3	-	-		1	1	-					
chloride of lime (bleach)	-		-		2	3	1		1		1		3		1	1	1		-		1		3	-				
chlorinated biphenyls (Clophen)	-		-		-		1						-		-		1		2		1							
chlorinated hydrocarbons, generally (see specific media)	-		-		-		-		-		-		-		-		2	3	-		1		3	-				
chlorine dioxide	-		-		2		-						1		1		1		-		1							
chlorine water	-		3	-	2	3	2		3	-	3	-	-		2		1		3		1		-					
chlorine, gaseous dry	-		-		-		-		-		-		-		3		1		-		1		-					
chlorine, liquid	-		-		-		-		-		-		-		3	-	1		-		1		-					
chloroacetic acid, mono-	-		-		1	3	1	1	3	-	1		3		2		-		-		1		-					
chlorobenzene	-		-		-		1		3				-		-		2		-		1		1	1				
chlorobutadiene → chloroprene																												
chloroethane → ethyl chloride																												
chloroethanol → ethylene chlorohydrin																												
chlorofluorocarbons (CFCs) → Freon																												
chloroform (trichloromethane) → chloromethanes													-															
chloromethanes (chloroform, dichloromethane)	-		-		-		3	-	-		-		-		-		2		-		1		3	-	2			
chloroprene (chlorobutadiene)	-		-		-		3		-		-		-		2		1		-		1							
chlorosulfuric acid	-		-		-		-		-		-		-		-		-		-		1		-					
chromic acid 10 %	-		3	-	1		3		2	3	2	3	3		1		1		2		1		-		3	-		
chromic acid 17 %	-		-		1				3	-	3	-	-		1		1		3		1		-					

Medium	Ester-PUR		Ether-PUR (FOOD)		Soft PVC		LLDPE (AIRDUC® and PROTAPE)		HDPE + LDPE (CP)		TPE		NEOPRENE®		HYP (=CSM)		VITON®		Silicone		PTFE		PA		ARAMID	
	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	176 °F	68 °F	176 °F	68 °F	176 °F	68 °F	212 °F	68 °F	140 °F	68 °F	212 °F
chromic acid 25 %	-		-		2		-		-		-		-		2		2		-		1		-			
chromic acid 50 %	-		-		-		-		-		-		2		3		2		-		1		-			
citric acid, aqueous	2	-	1	3	1	1	1	1	1	1	1	1	1		1	1	1	1	2		1		1	2		
cleaners (washing agents) → detergents																										
coal tar → creosote																										
coconut fatty alcohol	-		-		1	2	1		1		2	3			1		1	1	2	3	1		1			
coconut oil	1	1	1	1	1		1	1	2	3	3		3		3		1	1	2	3	1		1			
copper acetates, aqueous	2		2		1		1	1	1	1	2	-	2		2		-		2		1		1			
copper chloride, aqueous	1		1		1		1	1	1	1	1		1		1		1		2		1					
copper cyanide	3		1		1		1						1		1		1		1		1					
copper fluoride, aqueous	-		-				1	1	1	1	1				1		1		3		1		3			
copper hydroxide	1		1				1														1		1			
copper nitrate, aqueous	3	-	3	-	3		1	1	1	1	1	1	1		1	1	1	1	1		1		1			
copper sulfate, aqueous	2		2		2	3	1	1	1	1	1	1	1		1	1	1	1	1		1		1		2	3
corn germ oil	2	3	2	3	2	3	1		2	-			1		1		1		2		1		1			
cottonseed oil	1		1		1	1	1	1	1	1	2		2		2		1		2		1		1			
creosote (coal tar)	-		-		-		2						3		-		1		-							
cresols	-		-		-		2		3	-	-		3		-		1		3	-	1		-			
crotonaldehyde (butenal)	3	-	2	3	-		1				1		1		1		1				1					
crude oil → oil, mineral																										
cumene → isopropylbenzene																										
cyclohexane	1	2	1	2	-		1	1	2	-	-		-		-		1		-		1		1			
cyclohexanol	3	-	3	-	-		1	1	1	1	-		2		1		-		2		1		1			
cyclohexanone	-		-		-		1	1	2	-	-		-		-		-		2		1		1			
cyclohexylamine	-		-		1						-				3	-	-		-		1					
decalin	1		1		1		-						-		-		1		-		1					
denatured alcohol → ethanol	2	3	1	2	1	3	1	1	1	1	1	1	1		1	1	2	2	2	3	1		1	3		
detergents, generally (see specific media)	2	3	1	2	1	3	1	1	1	1	1	1	1		1	1	2	2	2	3	1		1	3		
developer solutions, generally	2		2		1		1		1				1		1		1		1		1		1			
dextrin, aqueous					1		1	1	1	1	1	1			1	1	1	1	1		1		1			
dextrose → glucose																										
diacetone alcohol	2	-	2	-	-		1						3		2		-		2		1		1			
dibenzyl ether	-		-		-								-		3		1		3		1					
dibutyl ether	-		-		2	-			3	-	-				2	3	-				1		1			
dibutyl phthalates → phthalic acid esters																										
dibutyl sebacate → sebacic esters																										
dibutylamine	-		-				-				-		-		-		-		3		1					
dichloroacetic acid	-		-						2	3	2	3	-		1	1	3	-			1		-			
dichlorobenzenes	-		-		-		1	1	3	-	-		-		-		1		-		1		1			
dichloroethanes	-		-		-		1	1	3	-					-		2				1		1			
dichloroethylenes	-		-		-		-		-		-		-		-		2		-		1		1			
dichloromethane → chloromethanes																										
diesel, -fuel/ -oil → gasoline, diesel																										
diethanolamine (iminodiethanol)							1	1	1	1										2	1					
diethyl ether	1		1		-		1	1	3		3		3		3	-	-		-		1		1		1	
diethyl sebacate → sebacic esters																										
diethylamine	-		-		-		3				3	-	-		3	-	-		2		1					
diethylbenzene	-		-		1		-						-		-		1		-		1					
diethylene glycol	3		3		2		1		1	1	1		1		1		1		2		1		2		-	
diglycol → diethylene glycol																										
diglycolic acid, aqueous	-		-		1	3	1		1	1	1				2		1		3		1		2			
diluents → see specific media																										
dimethyl ether	3		3		-		2						-		3		-				1		1			
dimethylamine	-		-		-		3		3	-	1		-		2	-	-		-		1		1			
dimethylaniline (xylidines)	2		2		-		-						-		3		2		2		1					
dimethylformamide	-		-		-		1	1	2	-	2		-		3	-	-		2		1		1		2	
dimethylheptanone	-		-		-				3	-							-				1					
dinonyl phthalate → phthalic acid esters																										
dioctyl phthalate → phthalic acid esters																										
dioctyl sebacate → sebacic esters																										
dioxane	-		-		-		1	1	2	3	2	3	-		3	-	-		-		1		1			
dipentene → limonene																										
diphenyl	-		-		-		2				-		-		-		1		-		1		1			
diphenyl ether	-		-		-		1	1	2	3			-		-		2		-		1		2			
dipropylene glycol							1						1		1		1		2		1					
dodecanol (lauryl alcohol, 1-dodecanol)	1		1		1		1	1	1	1			1		1		1		2		1					
Eau de Javel → sodium hypochlorite																										
epichlorohydrin	-		-		-		1		1				-		3	-	-		-		1		1			
essential oils, generally	2		2		-		1	1	3		-		-		-		1		3		1		1			
ethane	1		1		1		1		1		3	-	2		3	-	1		3	-	1		1			
ethanol, 10 % (ethyl alcohol)	2	3	1	2	1	3	1	1	1	1	1	1	1		1	1	1	2	1		1		1	2		
ethanol, 100 % (ethyl alcohol)	2	-	1	3	3	-	1	1	1	1	1	1	1		1		2		1		1		2		1	2
ethanolamines → aminoethanols																										
ethene → ethylene																										
ethyl acetate → acetic acid ethyl ester																										
ethyl acrylate → acrylic esters																										
ethyl alcohol → ethanol																										
ethyl bromide	2		2		-		2						-		-		1		-		1		1			
ethyl chloride	-		-		-		1	1	3	-	-		3		3	-	2		-		1		2			
ethyl ether → diethyl ether																										
ethyl mercaptan (ethanethiol)	-		-										-		2		-		3		1					
ethylbenzene	-		-		-		1	1	3	-	-		-		-		3		-		1		1			
ethylene	1		1		1		1		1				2		-		1		2		1		1			
ethylene chloride → dichloroethanes																										
ethylene chlorohydrin (2-chloroethanol)	-		-		-		1	1	1	1	2		-		2		-		-		1		-			

NORRES BAGGERMAN
Leading Performance.

Chemical resistance table Technical Hoses - 1

Medium	Ester-PUR		Ether-PUR (FOOD)		Soft PVC		LLDPE (AIRDUC® and PROTAPE)		HDPE + LDPE (CP)		TPE		NEOPRENE®		HYP (=CSM)		VITON®		Silicone		PTFE		PA		ARAMID	
	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	176 °F	68 °F	176 °F	68 °F	176 °F	68 °F	212 °F	68 °F	140 °F	68 °F	212 °F
ethylene glycol (glycol)	2	-	1	3	2		1	1	1	1	1	1	1		1	1	1	1	1	1	1		2		1	2
ethylene oxide, gaseous	-		-		-		2		-		2		-		-		3	-	-		1		3			
ethylenediamine	-		-		-		1	1	2		1		2		2		3		3	-	1		1			
FAM-Fuel → gasoline																										
fats → oils																										
fatty acids with >7 carbon atoms, generally	2	3	1	2	1		2		2				3		3		1		3		1		2			
fatty acids with 1-7 carbon atoms, generally	3	-	2	3	1		2		2				3		3		1		3		1		2			
fatty alcohols, generally (see specific media)	3		2		2		1		2	-	3				2		2		2		1		2			
fermentation gas (marsh gas)	1		1		1		1		1		-				1		1				1		1			
fertilizing salt, aqueous	-		3	-	1	1	1		1	2	1	1			1	1	1	1			1					
fir needle oil	2		2		-		1	1	2						-		2		3		1		1			
fish liver oil	1		1		-		1	1	2	-	1		3		2		1		2		1		1			
fish oil	2		2		2		1						1		3		1		1		1		1			
fluorine, gaseous	-		-		3				-		-		-		-		1	2	3		1		-			
fluorobenzene	-		-								-		-		-		1		-		1					
fluorosilicic acid, aqueous	-		-		1	1	2		1	1			2		1	2	1		2	3	1					
formaldehyde, aqueous	2	-	2	-	2	3	1	1	1	1	1	1	2		1		1	1	1	2	1		3		1	
formamide	-		-		-		1	1	1	1	1	1			1	1	2	3			1		2	3		
formic acid, 10 %	3	-	2	-	1	2	1	1	1	1	1	3	2		1	2	3	-	2	-	1	1	-		2	
formic acid, 100 %	-		-		2	-	1	1	1	1	2	-	2		3	-	-		-		1	1	-		3	-
formic acid, 3 %	2	-	1	2	1	1	1	1	1	1	1	2	2		1	1	2	-	1	3	1	1	3	-	1	
Freon R 11 (Frigen)	3		3												1		1		-				1		1	
Freon R 113 (Frigen)	3		3												1		2				1					
Freon R 114 (Frigen)	1		1		1										1		2				1		1			
Freon R 12 (Frigen)	3		3		2				-						1		2		-		1		1			
Freon R 22 (Frigen)	3		3								-				-		-		-		1		1		1	
fruit juice, fruit wine	2	3	2	3	1		1	1	1	1			1		1	1	1	1	1	1	1		1			
fuel → gasoline																										
fungi → microbes																										
furan	-		-		1		-						-		-		-				1					
furfural	-		-		-		1	1	3	-	-		3		3		-		3		1		2			
gallic acid	-		3	-	1		1	1	1	1			3		1		1		2		1		2			
gasohol															-				-		1					
gasoline, ASTM-Fuel A	1		1		3	-					-		1		1		1		3		1					
gasoline, ASTM-Fuel B	3		3		3	-					-		-		-		1		3		1		1			
gasoline, ASTM-Fuel C	-		-		3	-					-		-		-		1		-		1					
gasoline, diesel/ diesel oil/ heating oil	1		1		3	-	1	1	2	3	-		-		-		1	1	3		1		1			
gasoline, FAM-Fuel DIN 51604-A	1		1		3	-					-										1					
gasoline, FAM-Fuel DIN 51604-B	2		2		3	-					-										1					
gasoline, FAM-Fuel DIN 51604-C	3		2		3	-					-										1					
gasoline, flight- (kerosene)	1		1		3	-	1	1	2	3	-		1		-		1		3		1		1		1	
gasoline, generally (see specific media)	1		1		3	-	1	1	2	3	-		1		-		1	1	3	-	1	1	1		1	
gasoline-benzene (50/50 %)	3		3		3	-					-				-		2		-		1					
gasoline-benzene (60/40 %)	2		2		3	-					-				-		2		-		1					
gasoline-benzene (70/30 %)	2		2		3	-					-				-		1		3		1		1			
gasoline-benzene (80/20 %)	2		2		3	-	3		2	3	-				-		1		3		1		1			
gasoline-benzene-ethanol (50/30/20 %)	3		3		3	-					-				-				-		1					
gear lubricant → oil																										
gelatin, aqueous	2	3	1	2	1		1	1	1	1	1	1	1		1		1		1		1					
Glauber's salt → sodium sulfate																										
glucose (dextrose)	2	3	1	2	1	2	1	1	1	1	1	1	1		1	1	1	1	1	1	1		1			
glue (e.g. for wood)	2		2		1		1		1	1	1		1		1		1		1		1					
glycerol	1	1	1	1	1	3	1	1	1	1	1	1	1		1	1	1	1	1		1		1			
glycine, aqueous 10 %	-		-		1						1				2	3	1		2	3	1					
glycol → ethylene glycol																										
glycolic acid, 30 %	-		3	-	1	1	1		1	1	1				1	1	1	1	1		1		-			
grape juice → fruit juice																										
grape sugar → glucose																										
heating oil → gasoline, diesel																										
helium	1	1	1	1	1	1	1	1	1	1	1	1	2		1	1	1	1	1	1	1	1	1	1		
heptane	1	1	1	1	-		1	1	2	-	-		3		2	3	1	1	-		1		1			
hexachlorocyclohexane → lindane																										
hexanal	-		-				1						2		-		-		-		1		1			
hexane	1	2	1	2	-		1	1	3	-	-		1		2		1		-		1		1			
hexanetriol	-		-		1		1		1	1	1				1		1		1		1					
hexanol	-		-		-		1	1	1	1	-		2		1		1	1	-		1		2			
hexene	1		1				1						2		3		1		-		1					
hydraulic fluid, hydraulic oils DIN 51 524	1	1	1	1	3										-		1	1	3		1		1			
hydraulic fluid, oil-in-water-emulsion (HFA)	1	1	1	1							-				3		1		3		1					
hydraulic fluid, phosphate esters (HFD)	-		-		-										-		2		-		1		1			
hydraulic fluid, polyglycol-water (HFC)	2	-	1	3											1		1		2		1		2			
hydraulic fluid, water-in-oil emulsion (HFB)	-		-												2		1				1					
hydrazine	-		-		1	2	1						3		3		-		-		1		-			
hydrazine hydrate	3	-	2	3	1		1				1		2		1		-		3		1					
hydrobromic acid 50 %	-		3	-	1	1	1	1	1	1	1	1	-		1	1	1	1	-		1		-		-	
hydrochloric acid, 3 %	3	-	1	2	1	1	1	1	1	1	1	1			1	1	1	1	1	2	1	1	3	-	3	
hydrochloric acid, 10 %	-		2	3	1	2	1	1	1	1	1	2	3		1	1	1	1	2	3	1	1	-		-	
hydrochloric acid, 40 %	-		-		2	3	1	1	2	3	2	3	3		2	3	1	1	-		1	1	-		-	
hydrofluoric acid 10 %	3	-	2	-	1	1	1	1	1	1			2		1	1	2		2	3	1				2	
hydrofluoric acid 40 %	-		3	-	1	2	1	1	2	3			2		1	1	2		3	-	1		-			
hydrofluoric acid 70 %	-		-		3	-	-		3	-			2		1	1	3		-		1		-			
hydrofluorosilicic acid, aqueous	-		-		1		-								2		-		-		1					
hydrogen	1		1		1		1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1			
hydrogen chloride, -gas/-acid → hydrochloric acid																										

Medium	Ester-PUR		Ether-PUR (FOOD)		Soft PVC		LLDPE (AIRDUC® and PROTAPE)		HDPE + LDPE (CP)		TPE		NEOPRENE®		HYP (=CSM)		VITON®		Silicone		PTFE		PA		ARAMID	
	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	176 °F	68 °F	176 °F	68 °F	176 °F	68 °F	212 °F	68 °F	140 °F	68 °F	212 °F
hydrogen cyanide	3		2		1	3	1	1	1	1			3		2	-	3	-	3	-	1					
hydrogen peroxide, 3 %	1	2	1	2	1	1	1	1	2	3	1	2	-		1	1	1	1	1		1	1	-			
hydrogen peroxide, 30 %	2	-	2	-	2	3	1	1	3	-	2	3	2		1	1	1	1	1		1	1	-			
hydrogen sulfate																										
hydrogen sulfide, dry or wet	3	-	3	-	-		1	1	1	1	1		3		1	1	1	1	2	3	1	1	1			
hydrogen sulfites	-		3	-	1		1		1		2		1		1		2		3		1					
hydroquinone, aqueous	-		-		1	3	1	1	1	1			2		1		1		3		1					
hydroxylamine sulfate, aqueous	-		-		1						1				1		1		1		1					
ink, for writing	1		1		1	1	1		1	1					1		3		1		1		1			
iodine tincture (5–10 % alcoholic iodine solution)	-		-		2		2						3		2		1		-		1					
iron sulfates, aqueous	2	3	1	2	1		1	1	1	1	1		1		1		1		1		1					
iron(III) chloride, aqueous 10 %	2	3	1	2	1		1	1	1	1	1	2	1		1	1	1	1	1		1		3	-		
isobutyl alcohol	-		-		1		1	1	1	1	1		1		1		1		1		1		2			
isooctane	1	2	1	3	-		1	1	2	-	-		3		1		1		2		1		1			
isooctanol	-		-		-		1						3		2		1		3		1	0				
isophorone	3		3		-								-		-		-		-		1					
isopropanol (isopropyl alcohol)	2	-	1	-	3	-	1	1	1	1	1	2	1		1	1	1	1	3		1		2	-		
isopropyl acetate	3	-	2	-	3	-	1	1	1	2			-		-		-		3		1		1			
isopropyl chloride	-		-										-		-		1		-		1					
isopropyl ether	3	-	2	-	3		1	1	3	-	-		-		2	3	-		-		1					
isopropylbenzene (cumene)	-		3	-	-		-				-		-		-		1		-		1					
Javel water → sodium hypochlorite																										
kerosene → gasoline (kerosene)																										
ketones, generally (see exact media)	-		-		-		1	1	2	3	2	3	-		-		-		2	3	1		1	3		
lacquers → see exact media/ solvent																										
lactic acid, aqueous 3 %	2	3	1	2	1	2	1	1	1	1	1	1	3		1	1	1	1	1		1		2			
lactic acid, aqueous 10 %	3	-	2	3	2	3	1	1	1	1	1	1			1	1	1	1	2		1		3			
lactic acid, aqueous 50 %	-		-		3	-	1	1	1	1	1	1			1	1	1	1	3		1		-			
lanolin (wool fat)	1	1	1	1	2	-	1	1	1	2	-		3		3		1	1	3		1		1			
laughing gas	1		1		1		1		1		1		1		1		1		1		1		1			
lauryl alcohol → dodecanol																										
lavender oil	2		2								-		2		-		1		-		1		2			
lead acetates, aqueous	1	1	1	1	1	1	1	1	1	1	1		2		1	1	1	1	1		1		2			
lead arsenate, aqueous	3		1		1		1						1				1		1		1					
lead nitrate, aqueous	2		1		1		1	1	1	1	1		1		1		1		2		1					
lead sulfate	1		1		1		1	1	1	1			1		1		1		1		1					
lemon juice	2		1		1		1						1		1		1		2		1		2			
lighting gas (illuminating gas) → town gas																										
lignite tar oil (brown coal tar oil)	3		3		2		2						3		-		1		-		1					
lime → calcium oxide																										
lime, burnt → calcium oxide																										
limonene (dipentene)	2		2								-		-				-		1		2		1			
lindane → hexachlorocyclohexane																										
linoleic acid	2		1										-				-		2		3		1			
linseed oil (flaxseed oil)	2	3	2	3	2	-	1	1	2	3	2		2		1		1		1		1		1			
liquefied petroleum gas (LPG) → see specific media																										
liquid ammonia → ammonia																										
liquid manure	-		1		1		1						1		1		1		1		1					
lithium bromide	1		1				1	1	1	1	1				1		1		2		1		-			
lithium chloride	1		1		1		1	1	1	1					1		1		1		1		-			
lubricating oils/ greases → oil																										
lye, generally (see exact media)	2	3	1	2	1	2	1	1	1	2	2	2	1		1	1	2	-	2	-	1		-			
machine oils → oil																										
magnesium chloride, aqueous 10 %	1	-	1	3	1	2	1	1	1	1	1	1	2		1	1	1	1	1		1		1			
magnesium hydroxide, aqueous	1		1		1		1	1	1	1	1		1		1		1		1		1		1			
magnesium silicates (talc, talcum)	1		1		1		1						1		1		1		1		1					
magnesium sulfate, aqueous	1	2	1	2	1	1	1	1	1	1	1	1	1		1	1	1	1	1	3	1		1			
magnesium sulfites, aqueous	3		1		1		1						1		1		1		1		1					
maleic acid, aqueous	3	-	2	3	1	3	1	1	1	2	1	2	-		1	1	1	1	2	3	1		2			
malic acid, aqueous (apple juice)	-		3	-	1		1		1		1		1		1		1		1		1		1			
margarine	1	1	1	1	1	2	1	1	2	-	-		2		2	3	1	1	3	-	1		1			
marsh gas → fermentation gas																										
mash	1		1		1		1		1		1		1		1		1		1		1		1			
MEK → methyl ethyl ketone																										
melamine							-						-				1		3		1					
menthol	3	-	3	-			1	1	2	-	1	2			1	1	1	1	-		1		2			
mercury	1	1	1	1	1	1	1	1	1	1	1	1	2		1	1	1	1	1		1		2			
mercury nitrates	2	-	2	3	1		1	1	1	1							1		1		1		1			
mercury salts, aqueous (general)	-		-		2		1	1	1	1	1				1		1		1		1		-			
mercury(II) chloride	2	-	2	3	3	-	1	1	1	1	1		2		1		1		1		1	1	-			
mesityl oxide	-		-		-		3								-		-		-		1					
methane	1		1		1		1				-		-		2		1		3	-	1		1			
methanol (methyl alcohol)	2	-	2	3	3	-	1	1	1	1	2		1		1	1	3	-	2		1		3			
methyl acetate	-		-		3	-	1	1	1	1	2		-		-		-		-		1		1			
methyl acrylate	-		-		-								2		-		-		-		1					
methyl alcohol → methanol																										
methyl bromide	-		-		-		3		-		-		-		-		2		-		1					
methyl chloride → chloromethanes													-													
methyl chloroform → trichloroethanes																										
methyl ethyl ketone (MEK)	-		-		-		1	1	2	-	3	-	3		3	-	-		-		1		2			
methyl glycol → ethylene glycol																										
methyl isobutyl ketone	-		-		-		2				3	-	-		-		-		-		1		2			
methyl pyrrolidone (NMP)	-		-																				2			
methylamine, aqueous	-		-		3	-	1				1		2		1		-		-		1					

NORRES BAGGERMAN
Leading Performance.

Chemical resistance table Technical Hoses - 1

Medium	Ester-PUR		Ether-PUR (FOOD)		Soft PVC		LLDPE (AIRDUC® and PROTAPE)		HDPE + LDPE (CP)		TPE		NEOPRENE®		HYP (=CSM)		VITON®		Silicone		PTFE		PA		ARAMID	
	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	176 °F	68 °F	176 °F	68 °F	176 °F	68 °F	212 °F	68 °F	140 °F	68 °F	212 °F
microbes (microorganisms)	-	-	1	1	1	1	2	3	2	3	2	3			1	1	1	1	3	3	1	1	1			
milk	1		1		1		1	1	1	1	1		-		1		1		1		1		1			
milk of lime → calcium hydroxide																										
mine gas → methane																										
mineral spirits	1	2	1	2	3	-	1		2	-	-				-		1		-		1					
mineral oil → oil																										
mixed acid: sulfuric acid + nitric acid + water	-		-		-		1		-		3	-	-		-		-		-		1		-			
mixed acid: sulfuric acid + phosphoric acid + water	-		-		2		1		-		2	-	2		1		1		-		1		3			
molasses	3	-	2	-	1	2	1	1	1	1	1	2	1		1	1	1	1	1		1		1			
monochloroacetic acid → chloroacetic acid																										
morpholine	-		-		-		1	1	1	1	1	2	3		1	2	1	2	-		1					
motor oils (engine oils) → oil																										
mountain blue → copper hydroxide																										
must (fruit wine)	1		1		1		1		1		1		1		1		1		1		1		1			
mustard	1		1		1		1	1	1	1			1		1		-				1		1			
myristyl alcohol (tetradecanol)	1		1		1								1		1		1		2		1					
naphtha	2		2		-		1	1	2	3	3	-	3		-		1		-		1		1			
naphthalene	3	-	3	-	-		1	1	2	-	-		-		3	-	1	1	-		1		1			
natural gas, dry	1		1		1		1		1		3	-	1		3	-	1		3	-	1		1			
natural gas, wet with >7 C-atoms	1		1		3	-	1		2	3	3	3	1		2	3	1		3		1	1	1			
natural gas, wet with 1-7 C-atoms	2		2		-		1		3	-	-		1		2	3	1		-		1		1			
nickel acetate	-		-				1	1	1	1			2		-		-		3		1		1			
nickel chloride, aqueous	2	-	1	3	1		1	1	1	1	1		2		1		1		2		1		3			
nickel sulfate, aqueous	2	3	1	2	1	1	1	1	1	1	1	1	1		1	1	1	1	2	1	1	1	2			
nitric acid, 10 %	-		-		2	3	1	1	1	2	1	2	3		1	2	1	2	3	-	1		-		3	-
nitric acid, 25 %	-		-		3	-	1	2	2	3	2	3	2		2	3	2	3	-		1		-			
nitric acid, 50 %	-		-		-		2	-	-		3	-	-		2	-	2	-	-		1		-			
nitric acid, 100 %	-		-		-		-		-		-		3		3	-	3	-	-		1		-			
nitrobenzene	-		-		-		1	1	-		-		-		-		3	-	-		1		3			
nitrogen	1		1		1		1		1		1		1		1		1		1		1		1			
nitrogen oxides (nitrous fumes)	-		-		-		1	1	1	1	-		-		3		3				1		3			
nitroglycerin	-		-		1	3	1	1	-						1		1		-		1					
nitromethane	-		-		2		1				3		3		3	-	-		-		1		2			
nitropropanes	-		-								3		-		-		-		-		1		2			
nitrotoluenes	-		-		-		1	1	3	-	-		-		-		3	-			1		3	-		
nitrous fumes → nitrogen oxides																										
nonyl alcohol (nonanol)	-		-				1	1	1	1			3		2		1		2		1		3			
octane	1		1		-		1	1	1	1	-		-		-		1		-		1		1			
octanols (octyl alcohols)	-		-		-		1	1	1	3	1		1		1		1		2		1		1			
oil, animal	1	1	1	1	2	3	1	1	2	3	3	-	3		2	3	1	1	3	-	1	1	1			
oil, ASTM oil No. 1	1	1	1	1	3	-	1	1	2	3	-		1		2	3	1	1	2	2	1	1				
oil, ASTM oil No. 2	1	1	1	1	3	-	1	1	2	3	-		1		2	3	1	1	2	2	1	1				
oil, ASTM oil No. 3	1	1	1	1	3	-	1	1	2	3	3	-	-		2	3	1	1	2	3	1	1	1			
oil, ATF-	1	1	1	1							3	-			3	-	1	1	3	-	1	1	1			
oil, hydraulic → hydraulic fluid																										
oil, mineral	1	1	1	1	3	-	1	1	2	3	3	3	-		2	3	1	1	2	3	1	1	1		1	
oil, vegetable	1	1	1	1	2	3	1	1	2	3	2	3	2		2	3	1	1	3	-	1	1	1			
oleic acid	2	3	1	2	2	3	2		2				-		3		2		3		1		2			
oleum	-		-		-		-						-		-		1		-		1					
oleum vapor	-		-		3		-						-		3		3		-		1					
olive oil	1	1	1	1	2	3	1	1	2	3	2	3	2		2	3	1	1	2	3	1	1	1			
oxalic acid, aqueous	3	-	2	3	1	2	1	1	1	1	1	3	2		1	2	1	1	2	3	1		3		2	-
oxirane → ethylene oxide																										
oxygen → air																										
ozone	3		3		3		-		-		3		2		1		2		2		1		-			
palm oil	2		2		3		1	1	1	2			-		3		1		2		1					
palmitic acid	1		1		3		1	1	1	1	3	-	3		3	-	1	1	2		1		1			
paraffin	1		1		-		1	1	2	-	-		-		3	-	1	1	3	-	1		1			
paraffin oil	1		1		2	-	1	1	1	3	-		-		3	-	1	1	2		1		1			
paraformaldehyde	2		1				1						2				2		1		1					
pectins	1		1		1	1					1				1		1		1		1		1			
pentachlorophenol	-		-																3		1					
pentanes	1		1		1		-						2		-		1		-		1		3			
pentanols (amyl alcohols)	-		-		-		1	1	2	3	1		1		1		1		3		1		1		1	
pentyl acetates	-		-		-		1		2	3	3	-	3		-		-		-		1		1			
perchloric acid, aqueous	-		-		2	3	2	3	3	-	2	-	3		1	1	1	-			1		-			
perchloroethylene → tetrachloroethylene													-													
Perhydrol → hydrogen peroxide																										
petroleum ether	1		1		-		1	1	2	-	-		1		-		1	1	-	-	1	1	1			
phenol	-		-		-		1	1	3	-	-		3		-		1	1	2	3	1	1	-			
phenyl ether → diphenyl ether																										
phenylhydrazine	-		-		-		3	-			3	-			3	-	2	3	-		1					
phosgene	-		-		-				-		-				2	3	2	3	-		1		-			
phosphoric acid 3 %	2	3	1	2	1	1	1	1	1	1	1	1	1		1	1	1	2	3	1	1	1	3	-	2	3
phosphoric acid 50 %	-		-		1	2	1	1	2	3	1	2	1		1	1	1	1	3	-	1	1	-			
phosphorus oxychloride (phosphoryl chloride)	-		-		-		-		2	3	2	3	1		1	1	1	1	-		1		-			
photographic developer, generally (see specific media)	-		-		2		1	1	1	1	1				1		1		2		1		1			
photographic emulsion, generally (see specific media)	-		-		1		1		1		1				1		1		2		1		2			
photographic fixer, generally (see specific media)	-		-		1				1	1	1				1		1		2		1		1			
phthalates → phthalic acid esters (phthalates)																										
phthalic acid esters (phthalates)	-		3	-	1	2	1	1	2	-	2	3	-		1	2	1	2	-		1	1	2			
picric acid	3	-	2	3	1		1	1	1	2	1		3		1		1		2	3	1		3			
pig fat → oil, animal																										
polychlorinated biphenyls	2		2		3		3						3		-		1		-		1					

Medium	Ester-PUR		Ether-PUR (FOOD)		Soft PVC		LLDPE (AIRDUC® and PROTAPE)		HDPE + LDPE (CP)		TPE		NEOPRENE®		HYP (=CSM)		VITON®		Silicone		PTFE		PA		ARAMID	
	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	176 °F	68 °F	176 °F	68 °F	176 °F	68 °F	212 °F	68 °F	140 °F	68 °F	212 °F
potash → potassium carbonate																										
potash lye 10 %	2	3	1	2	1	2	1	1	1	1	1	2	1		1	1	1	2	2	3	1		1		2	
potash lye 50 %	-		3	-	2	3	1	1	1	2	2	3			1	1	2	3	3	-	1		2			
potassium acetate, aqueous	3	-	3	-	1		1	1	1	1	1		-		1		-		-		1					
potassium aluminum sulfate → alum																										
potassium hydrogencarbonate	2		2		1		1	1	1	1			1		1		1		1		1		3			
potassium bicarbonate → potassium hydrogencarbonate																										
potassium bisulfate → potassium hydrogen sulfate																										
potassium borate, aqueous	3	-	2	-	1		1	1	1	1	1		1		1		1		1		1		1			
potassium bromate 10 %	-		-		1		1	1	1	2	1	1			1	1	1	1	2	3	1		3			
potassium bromide, aqueous	3	-	2	-	1		1	1	1	1	1	1			1	1	1	1	1		1		2			
potassium carbonate, aqueous (potash)	3	-	3	-	1		1	1	1	1	1		1		1		1		1		1		1			
potassium chlorate, aqueous	3	-	2	-	1	3	1	1	1	1	1	1			1	1	1	1	3	-	1		1			
potassium chloride, aqueous	2	-	1	3	1	1	1	1	1	1	1	1	1		1	1	1	1	2	3	1		1			
potassium chromate, aqueous 40 %	-		-		1	3	1	1	1	1	1		1		1		1		2	3	1					
potassium cyanide, aqueous	3	-	3	-	2		1	1	1	1	1		1		1		2		2		1					
potassium dichromate, aqueous 40 %	-		3	-	2	3	1	1	1	1	1		2		1		1		3		1		1			
potassium hydrogensulfate, aqueous	-		3	-			1	1	1	1	1				1		1		2		1		3			
potassium hydroxide → potash lye																										
potassium hypochlorite	-		-		1		3						-		3		2		3		1	1	3			
potassium iodide, aqueous	-		-		1		1	1	1	1	1	1	1		1	1	1	1	2	3	1	1	1			
potassium nitrate, aqueous	2	-	1	3	1		1	1	1	1	1	1	1		1	1	1	1	2	3	1		1			
potassium perchlorate, aqueous	-		-		1						1	1			1	1	1	1	2	3	1		-			
potassium permanganate, aqueous 5 %	3	-	2	3	2	3	1	1	1	1	1	1	2		1	1	1	1	1	2	1		-			
potassium peroxodisulfate	-		3	-	1	3	1	1	1	1	1	1			1	1	1	1	3	-	1		-			
potassium phosphates (monobasic and dibasic)	1		1				1						1		1		1		-		1					
potassium sulfate, aqueous	1	3	1	2	1	1	1	1	1	1	1	1	1		1	1	1	1	2		1		1			
potassium sulfite	1		1		1		1	1	1	1			1		1		1		1		1		1			
premium gasoline → gasoline																										
propane, liquid or gaseous	1		1		-				3	-	-		1		3	-	1		-							
propargyl alcohol, aqueous 7 %	-		-				1	1	1	1	2	3			2	3	1	1	2	3	1	1				
propene (propylene)	-		-								-		-		-		1		-		1		1			
propionic acid (propanoic acid)	-		-		1		1	1	2	3	3	-	-		3	-	2	3	-		1	1	3			
propyl acetates	-		-				2						-		-		-		-		1		1			
propylamines	-		-										-		-		-		-		1					
propylene	-		-		2								-		-		1		-		1					
propylene dichloride (dichloropropane)											-								-		1					
propylene glycols (propanediols)	-		-		-		1	1	1	1	1	1	2		1	1	1	1	1		1		-			
propylene oxide	-		-				2				1		-		-		-		-		1		3			
pyridine	-		-		-		1		2	3	3	-	-		-		-		-		1		1			
pyrrole	-		-										3		-		3		-		1					
radiation, radioactive 10^8 Rad	2	2	2	2	3	3	-	-	-	-			1		1				-	-	-	-				
radiation, ultraviolet	2	2	2	2	2	2	3	3	3	3	2	2			1	1	1	1	2	2	1	1				
radiation, ultraviolet B and C																					1					
rapeseed oil	1	-	1	2			-						3		2		1		-		1		2			
raw sugar juice	-		3		1		1						2		1		1		1		1					
refrigerating agent → Freon																										
resorcinol							1	1	1														-			
rock salt (halite) → sodium chloride																										
saccharose → sugar																										
salicylic acid	2		1		1	3	1	1	1	1	1		2		1		1		1		1		1			
salmiac → ammonium chloride																										
salt water → water																										
sea water → water																										
sebacic esters	-		-		-		1				2		-		-		3		-		1					
silicic acids, aqueous	-		3	-	1	2	1	1	1	1	1	1			1	1	1	1	2	3	1					
silicon dioxide → silicic acids																										
silicone oil/ silicone grease	1	2	1	2	-		1	1	1	2			1		2	3	1	2	2		1		1			
silver nitrate, aqueous	-		-		1	3	1	1	1	2	1	2	1		1	1	1	2	2	3	1	1	1			
silver salts, generally (see exact media)	3	-	3	-	1	3	1	1	1	2	1	2			1	1	1	2	2	3	1	1	1			
Skydrol → hydraulic fluid, phosphate esters																										
slaked lime → calcium hydroxide																										
soap suds → detergents																										
soda ash → sodium carbonate																										
soda lye → sodium hydroxide																										
sodium acetate, aqueous	3	-	2	-	1		1	1	1	1	1		1		1		-		2		1		1			
sodium benzoate, aqueous	1		1		1		1	1	1	1	1	1	1		1	1	1	1	2	3	1		1			
sodium bi... → sodium hydrogen...																										
sodium bromide					1		1	1	1	1			1		1		1				1		1			
sodium carbonate (soda ash)	3	-	2	3	1	2	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1			
sodium chlorate, aqueous	3	-	2	-	1	1	1	1	1	2	1	3	1		1	1	1	1	2		1		2			
sodium chloride, aqueous (table salt)	2	3	2	3	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1		1	3	1	2
sodium chlorite, aqueous					2	-	2				1	3			1	1	1	1			1		-			
sodium cyanide	3	-	3	-	1	1	1	1	1	1	1		1		1		1		1		1		1			
sodium dichromate	3	-	3	-	-		1	1	1	1			1		1		1		2		1		2			
sodium fluorides, generally	3	-	3	-	1		1	1	1	1			1		1		1		2		1		2			
sodium hydrogencarbonate, aqueous	3	-	3	-	1		1	1	1	1	1	1	1		1	1	1	1	1		1		1			
sodium hydrogensulfate	3	-	2	-	1		1	1	1	1	1				1		1		1		1		-			
sodium hydrogensulfite, aqueous 10 %	2	-	2	-	1	1	1	1	1	1	1	2			1	1	1	2	1		1		1			
sodium hydroxide (caustic soda), aqueous 3 %	3	-	2	3	1	2	1	1	1	1	1	2	1		1	1	1	2	2	3	1	1	1		3	-
sodium hydroxide (caustic soda), aqueous 50 %	-		-		-		1	2	1	2	3	-	-		1	1	-		3	-	1	1	2		3	-
sodium hypochlorite, aqueous 10 %	3	-	2	3	1		1	1	3	-	3	-	1		1	2	2	-	3	-	1		-			
sodium metaphosphates	1		1		1		1						2		2		1		1		1					
sodium nitrate, aqueous 10 %	2	3	2	3	1	2	1	1	1	1	1	1	1		1	1	1	1	2		1		1			
sodium nitrite	3	-	2	-	1	1	1	1	1	1	1	1	1		1	1	1	1	2	3	1		1			

Chemical resistance table Technical Hoses - 1

Medium	Ester-PUR		Ether-PUR (FOOD)		Soft PVC		LLDPE (AIRDUC® and PROTAPE)		HDPE + LDPE (CP)		TPE		NEOPRENE®		HYP (=CSM)		VITON®		Silicone		PTFE		PA		ARAMID	
	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	140 °F	68 °F	176 °F	68 °F	176 °F	68 °F	176 °F	68 °F	212 °F	68 °F	140 °F	68 °F	212 °F
sodium perborate	-		-		2	3	1	1	1	2	1		1		1		1		1		1		3			
sodium phosphates	2	3	2	3	1	1	1	1	1	1	1	1	1		1	1	1	1	2		1		2		3	-
sodium silicate, aqueous	-		3		1		1						1		1		1		1		1					
sodium sulfate, aqueous (Glauber's salt)	2	3	1	2	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1					
sodium sulfides	2		2		1		1	1	1	1	2	1			1	2	1	1			1		1			
sodium sulfite, aqueous 3 %	1	2	1	2	1	1	1	1	1	1	2	1			1	1	1	2	1		1		1			
sodium thiosulfate	2		1		1	1	1	1	1	1	1	1			1	1	1	1	1		1		1			
solvents, generally (see exact media)	-		-		-		1	1	3	-	-				-		-		-		1	1	2			
soybean oil	1		1		2	-	1	1	2	3	2	3	3		2		1		1		1		1			
spirits	1		1		1	1	1	1	1	1			1		1		1		1		1		1			
starch syrup	2	3	2	3	1		1	1	1	1	1		1		1	1	1	1	1		1	1	1			
starch, aqueous	-		-		1		1	1	1	1	1	1	2		1	1	1	1	1		1		1			
steam → water vapor																										
stearic acid	3	-	2	3	1	2	1	1	1	3	2	3	-		1	3	1	2	1		1	1				
styrene	-		-		-		1	1	3	-	-		-		-		2	3	-		1		1			
succinic acid, aqueous	-		3	-	1	1	1	1	1	1	1	1			1	1	1	1	2	-	1		1			
sugar syrup (saccharose)	2	3	1	2	1	2	1	1	1	1	1	1			1	1	1	1	1	1	1		1			
sugar, dry	1	2	1	1	1	1	1	1	1	1	1	1			1	1	1	1	1	1	1		1	1		
sulfonic acids, generally	-		-		1	2	1	1	1	1	2	3			1		1	1	1		1					
sulfur dioxide → sulfuric acid																										
sulfur trioxide (sulfuric anhydride)	-		-		-		3	-	-		-		-		-		1		-		1					
sulfuric acid, 3 %	3	-	1	2	1	1	1	1	1	1	1	1	1		1	1	1	1	1	3	1	1	-		2	-
sulfuric acid, 25 %	-		3	-	2	3	1	1	1	2	1	2	1		1	2	1	1	3	-	1	1	-		3	-
sulfuric acid, 50 %	-		-		3	-	1	2	2	3	2	3	3		2	3	1	2	-		1	1	-		3	-
sulfuric acid, 90 %	-		-		-		2	3	3	-	-		3		3	-	2	3	-		1		-		-	
sulfur hexafluoride															1		1						1			
table salt → sodium chloride																										
tallow, sebum	2	3	2	3	1		1		1	2	2	3	1		1	1	1	1	1		1		1			
tannic acid → tannins																										
tannins (tannic acid)	3	2	2	3	1		1	1	1	1	1		2		1		1		2		1					
tar (tar oil)	-		-		3	-	2						-		-		1		3		1		3			
tartaric acid, aqueous	2	3	1	2	1		1	1	1	1	1	2			1	1	1	1	1		1		2			
tea, aqueous					1	1	1	1	1	1											1					
tetrachloroethane	-		-		-		1	1	3	-	-		-		-		2	3	-		1		1			
tetrachloroethylene (perchloroethylene)	-		-		-		1	1	-		-		-		3	-	1	2	-		1	1	3		2	
tetrafluoroboric acid, 65 %	-		-		1		1						3		2		2		-		1					
tetrahydrofuran	-		-		-		1	1	-		-		-		-		-		-		1		1			
Tetralin (tetrahydronaphthalene)	-		-		-		1	1	3	-	-		-		-		1		-		1		1			
thionyl chloride	-		-		-		-		-		-		-		1		3	-	-		1		-			
thiophene	-		-		-		1	1	-		-				-		-		-		1	1	1			
tin(II) chloride, aqueous	3	-	2	3	1	2	1	1	1	2	1	2	1		2	3	1	1	2		1	1	3			
toluene	-		-		-		1	1	3	-	-		-		-		2		-		1		1		2	
town gas, free of benzene	1		1		1		1		1		3	-	-		3	-	1		3	-	1		1			
transformer oil → oil																										
tributyl phosphate	-		-		-		1		1				-		-		-		-		1		3			
trichloroacetic acid	-		-		2		1	1	3	-	3		-		3	-	-		-		1		-			
trichloroethanes (methyl chloroform)	-		-		3		1	1	2	3			-		-		1		-		1					
trichloroethylene	-		-		-		1	1	-		-		-		-		2	3	-		1		3		2	
trichloromethane → chloromethanes																										
tricresyl phosphate	-		-		-		1	1	1	2	2		-		-		2		-		1		1			
triethanolamine	-		-		-		1						2		2		1		1		1					
triethylamine (TEA)	2		2		2		1						2				-		-		1					
triethylene glycol	2	3	2	3					1		1				1		1		2		1					
trisodium phosphates → sodium phosphates																										
tung oil → wood oil																										
turpentine	-		-		-		1	1	3	-	-		2		-		1	2	-		1		3			
turpentine, oil of	-		-		-		-		3	-	-		2		-		1		-		1		1			
urea, aqueous	3	-	3	-	1	3	1	1	1	1	1		1		1		1		3	-	1		1			
urine	1		1		1		1		1	1			1		1		1		1		1		1			
varnish	3		2		-		1						-		-		1		-		1					
Vaseline	1		1		3	-	1	1	2	3			-		-		1	1	2		1		1			
vegetable oil → oil																										
vinegar	-		3		2		1						1		1		2		1		1					
vinyl acetate	-		-		-		1						1		3		3		-		1		1			
vinyl chloride	-		-		-		-		-		2	3	-		-		1		-		1		2			
vitriol oil → oleum																										
washing agents → detergents																										
wastewater	-				1		1						1		1		1		2		1					
water	1	2	1	1	1	1	1	1	1	1	1	1			1	1	1	1	1	1	1	1	1	2	1	1
water vapor (steam) → water																										
water, deionized → water																										
water, demineralized → water																										
water, distilled → water																										
water, mineral water	2	3	1		1	1	1		1		1	1	1		1	1	1	1	1		1	1	1			
water, sea water/ salt water	1	2	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	3	1	
water-glass, aqueous	-		3	-	1	2	1	1	1	1	1	1	1		1	1	1	1	2	3	1		1			
weathering, generally	2	2	2	2	2	3	3	3	3	3	2	2			2	2	1	1	2	2	1	1	3			
white oil → paraffin																										
white spirit → mineral spirits																										
wine	1		1		1		1	1	1	1	1		1		1		1		1		1		1			
wood oil	3		2		3		2						-		3		1		3		1					
wool fat → lanolin																										
XYLAMON	3		3								-				-		2		-		1					
xylenes	3	-	3	-	-		1	1	-		-		-		-		2		-		1		1			
yeast, aqueous	-		1		1		1	1	1	1	1				1		1		1		1		1			
zinc acetate, aqueous	-		-				1	1	1	1			-		2		-		-		1					
zinc chloride, aqueous	2	3	2	3	1	2	1	1	1	1	1	1	1		1	1	1	1	1		1		3			
zinc sulfate, aqueous	2	3	2	3	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1		2			