

Beständigkeitsliste

List of Resistance

Beständigkeitsliste:

Die Beständigkeitsliste kann bei der Auswahl der gummiierung nur richtungweisend sein, da die Beständigkeit von vielen, von uns nicht vorhersehbaren Faktoren wie Temperatur, Konzentration, Verschmutzungsgard des Mediums, Art der mechanischen Beanspruchung etc., abhängig ist.

Aus der Beständigkeitsliste können keine Gewährleistungsansprüche abgeleitet werden.

List of Resistances:

The resistance list may only be regarded feature when selecting the right rubber lining. Note: The resistance depends on a lot of unforeseen factors, such as temperature, concentration, contamination degree of the media, type of mechanical strain, etc.

This resistance list will not justify any warranty claims.

Zeichenerklärung für die Beständigkeit:

- beständig - aus wirtschaftlichen oder techn. Gründen zweckmäßigerweise verwenden
- + beständig
- bedingt beständig
- nicht beständig

Codes for Corrosion Resistance:

- resistant - use for economical and technical reasons
- + resistant
- limited resistant
- not resistant

Kurzzeichen für Kautschuk / Kunststoff:

CR	Chloroprene-Kautschuk (Bayer/Neoprene®)
CSM	Chlorsulfanylpolyäthylen (Hypalon®)
IIR	Isobutylen-Isopren-Kautschuk (Exxon-Butyl®)
FPM	Fluorelelastomer (3M/Fluorel®)
NBR	Acrylnitril-Butadien-Copolymer (Perbunan®)
NR	Isoprene (Natur-Kautschuk)
SBR	Styrol-Butadien-Kautschuk (Hüls/Buna®)
EPDM	Äthylen-Propylenterpolymersat (Exxon)
VMQ	Silicone-Kautschuk (Bayer)

Symbols for Rubber / Plastic Material:

CR	Chloroprene-rubber (Bayer/Neoprene®)
CSM	Chlorsulfanylpolyethylen (Hypalon®)
IIR	Isobutylen-Isopren-rubber (Exxon-Butyl®)
FPM	Fluorine elelastomere (3M/Fluorel®)
NBR	Acrylnitrile-Butadien-Copolymere (Perbunan®)
NR	Isoprene (natural rubber)
SBR	Styrol-Butadien-rubber (Hüls/Buna®)
EPDM	Äthylen-Propylenterpolymersat (Exxon)
VMQ	Silicone-rubber (Bayer)

List of Chemicals I

Chemicals	item no	Chemicals	item no	Chemicals	item no
Acetaldehyde	002	DeminerIALIZED water (boiler feed water)	242	picric acid	202
acetamide	003	detergents; soapy sol.	221	potable water	241
acetanilide, aqu. solution	004	dextrose; d-glucose	237	potash chromium alum, chromium alum	124/82
acetic acid	097	dibutyl sebacate	089	potash lye	117
acetic anhydride	098	diethylene glycol	088	potash sulfate, alum	118
acetone	005			potassium acid carbonate	129
acetyl chloride	006	Ethanolamine	034	potassium bromide	120
acetylene	007	ether, K > 30°C	035	potassium carbonate	122
acrylonitrile	008	ethyl alcohol	037	potassium chlorate	121
adipic acid, aqu.	009	ethyl benzene	038	potassium chloride	123
air, pressurized, no oil containing	090	ethyl ether	087	potassium cyanide	125
air, pressurized, with oil traces	091	ethylacetate	036	potassium dichromate	127
alodine process bath	014	ethylene carbonate	039	potassium ferricyanide	128
alum potassium sulfate brine	012	ethylene glycol	040	potassium fluoride	119
alum potassium sulfate, cont. hydrogensulfide	013	ethylene oxide	041	potassium hydroxide	133
alum potassium sulfate	011	exhaust fume, flue gas	208	potassium nitrate	131
aluminum chloride	015	Fatty acids (f. i. palmic-, oleic-, stearic-)	100	potassium nitrite	132
aluminum fluoride, crist.	016	fluorosilic acid	137	potassium permanganate	134
aluminum hydroxide	017	formaldehyde	103	potassium peroxy disulfate	135
aluminum lye (sodium sat.)	018	formic acid	020	potassium sulfate	130
aluminum sulfate	019	furfural	104	propionic acid	204
ammonia, aqu.	022	furfuryl alcohol	105	n-propyl alcohol	205
ammonia, wet gas	023			propyl benzene	206
ammonium bisulfate	025	Gallic acid	107	pyridine	207
ammonium chloride	026	gasoline; petrol	048	Salicylic acid	211
ammonium fluoride	024	glucose	110	sea water	220
ammonium nitrate	027	glycerine	111	silicon oils	224
ammonium sulfate	028	glycolic acid	109	silicon tetrachloride	225
ammonium sulfite	029			silver chloride	222
ammonium thiosulfate	030	Hexane	113	silver nitrate	223
amyl alcohol	032	hydrazine hydrate	114	sodium acetate	166
amylacetate	031	hydrochloric acid	213	sodium bicarbonate	173
aniline+water+formaldehyde 40%	033	hydrofluoric acid	101	sodium bisulfite	174
		hydrofluoric acid, vapour	102	sodium carbonate	167
		hydrogen peroxide	244	sodium chlorate	168
		hydrogen sulfide, dry	218	sodium chloride	169
		hydrogen sulfide, wet	219	sodium chloride + chlorine, aqu. sol.	141/76
				sodium cyanide	170
Barium carbonate	042	Iron nitrate	094	sodium dichromate	171
barium chloride	043	iron phosphate, crystalline	095	sodium hydrosulfite; sodium dithionite	172
barium cyanide	044	iron sulfate	096	sodium hydroxide; caustic soda	185
barium hydroxide	045	iron (II) chloride	092	sodium hypochlorite	55/175
barium sulfate	046	iron (III) chloride	093	sodium nitrate	176
barium sulfide	047	isobutyl alcohol	116	sodium nitrite	177
battery acid	010	isopropyl alcohol	115	sodium perborate	178
benzene 95% + hydrochloric acid 5% conc.	050			sodium perchlorate	179
benzenesulfonic acid	051	Lactic acid	163	sodium phosphate, dibasic	180
bezoic acid	049	latex	151	sodium phosphate, monobasic	181
bleaching lye: 14 gr/ltr. free chlorine	054	lead acetate	052	sodium sulfate; „glaubers salt“	108/182
boiler feed water	140	lead carbonate	053	sodium sulfite	183
borax, sodium tetraborate	059	lead chloride	056	sodium tetrasulfate	243
boric acid	060	lead sulfate, crist.	057	sodium thiosulfate	184
brackish water	061	lime sludge	136	spin bath liquid (acid)	226
brake fluid, automotive	062	linseed oil	152	stannum chloride	250
bromine, aqu. solution	063			stannum sulfate	251
butyl acetate	065	Magnesium chloride	153	stearic acid	227
butyl alcohol	066	magnesium sulfate	154	sugar sol., raw; syrups	253
butyric acid	064	maleic acid	155	sulfamic acid	021
		manganese chloride	156	sulfur dioxide	214
Calcium bicarbonate	068	mercury (II) chlor	208	sulfuric acid	216
calcium bisulfite	067	methanol; wood alcohol	158	sulfuric oxychloride	228
calcium chloride	069	methyl acetate	99/159	sulfurous acid	217
calcium hydroxide	070	methyl carbitol, methyldiglycol	160	super-phosphoric acid	200
calcium hypochlorite	071	methylenechloride, dichloro-methane	162		
calcium nitrate	072	molasses, blackstrap	157	Tanning agent, tannin	106/230
caolin sludge	139	methyl-ethyl-ketone	161	tannic acid	230/106
caprolactam	073			d-tartaric acid	245
carbon dioxide	142	Naphtalene 1,5 di-sulfonic acid		tetrachloro ethylene	193
carbon oxide	143	(Armstrong's acid)	165	tetrahydrofurane	232
carbon tetrachloride	231	naphtalene lulfonic acid	164	thioglycolic acid	233
castor oil	210	nickel sulfate	187	titandioxide, solution	234
chloral hydrate	075	nitric acid	212	toluene	235
chloral; trichloro-ethanol	074	nitrogen monoxide	229	transformer oil	236
chlorine, aqu.	081	nitrogen oxide, dry	188	tri-ethanolamine	238
chlorine, dry	080			trichloro-ethylene	239
chlorine, wet gas	079	Oil (acc.to ASTM 1 to 4)	189	trichloroacetic acid	240
chloro acetic acid	078	oxalic acid	190		
chloro benzene	077			Urea	112
chromic acid	083	Paraffin oil; mineral oil	192	Waste water, ph 1-13,	
chromium alum chrom.potassium sulfate	82/124	perchlorid acid	194	(without hydrocarbon contents)	001
citric acid	84/252	petroleum	195		
cobalt acetate	138	phenol; carbolic acid	196	Xylene	246
condensate	144	phenolates, saturated	197		
copper acetate	147	phosphating agent; (Bonderite)	058	Zinc chloride	247
copper chloride	148	phosphoric acid, ortho	199	zinc oxide (solid matter)	248
copper nitrate	149	phtalic acid	201	zinc sulfate	249
copper sulfate	150	phenolsulfonic acid	198		
cresolsulfonic acid	146				
cresole, raw	145				
cyclohexanol	085				
cyclohexanone	086				

Beständigkeitsliste I

List of Resistance

Item No.	Durchflußmedium fluid	Formel Formula	Konz. Conc.	Temp. Temp.	S+S Hartgummi S+S hard rubber			S+S Weichgummi S+S resilient rubber							
					NR 31-01	NR 31-03	Rep. Set	CR	NR	NBR	CSM	IIR	EPDM	FPM	SBR
001	Abwasser ph 1-13 ohne Lösungsmittel			80°C	●	+	●	●	●	+	+	+	+	+	+
002	Acetaldehyd	CH ₃ CHO		20°C	○	●	○	-	-	○	+	-	-	●	○
003	Acetamid gesättigte. Lösung			20°C	-	-	-	●	-	+	-	-	-	+	-
				60°C	-	-	-	-	-	○	-	-	-	+	-
004	Acetanilid wässrige Lösung	C ₆ H ₅ NH CO CH ₃		20°C	○	●	○	●	-	-	-	-	-	○	-
				80°C	○	+	○	+	-	-	-	-	-	○	-
005	Aceton	CH ₃ CO CH ₃		20°C	○	+	○	-	-	-	-	○	○	-	○
006	Acetylchlorid	CH ₃ CO Cl		20°C	-	-	-	-	-	-	-	-	-	-	-
007	Acetylen	CH CH		50°C	+	+	+	+	+	+	+	+	+	+	+
008	Acrylnitril	CH ₂ CH CN		20°C	+	●	+	●	-	-	-	+	-	○	-
				50°C	-	○	-	○	-	○	-	-	-	○	-
009	Adipinsäure wässrig	HOOC(CH ₂) ₄ COOH		20°C	+	●	+	+	-	○	○	○	○	+	+
				80°C	○	○	○	+	-	○	○	○	○	+	○
010	Akkusäure d=1,28	H ₂ SO ₄	28-30%	20°C	●	+	○	●	●	+	+	+	+	+	○
				50°C	○	○	○	○	●	+	+	+	+	+	○
011	Alaun	KAl(SO ₄) ₂ 12H ₂ O	gesättigt saturated	20°C	+	●	+	●	●	+		+	+	+	+
				50°C	+	+	+	+	●	+		+	+	+	+
				95°C	-	○	-	+	-	-		●	●	+	○
012	Alkazidlauge			20°C	+	●	+	-	●	+	+	+	+	+	+
				90°C	○	○	○	-	-	+	○	●	●	+	○
013	Alkazidlauge mit Schwefelwasserstoff			20°C	+	●	+	-	●	-	-	+	+	+	+
				90°C	○	○	○	-	○	-	-	●	●	+	○
014	Alodin		100-1200	20°C	○	○	○	-	-	-	-	-	-	+	
				50°C	○	-	○	-	-	-	-	-	-	-	+
015	Aluminiumchlorid	AlCl ₃ 6H ₂ O		20°C	+	●	+	●	●	+	+	+	+	+	+
				50°C	+	+	+	+	●	+	+	+	+	+	+
				100°C	-	+	-	+	-	-	-	●	●	+	+
016	Aluminiumfluorid, kristallin	Al F ₃	gesättigt saturated	20°C	+	●	+	●	●			+	+	+	+
				50°C	○	+	○	+	○			●	●	+	+
				95°C	-	○	-	○	-			●	●	+	+
017	Aluminiumhydroxyd	Al (OH) ₃		20°C	+	●	+	●	●	+	+	+	+	+	
				50°C	+	+	+	+	●	○	+	+	+	+	
				95°C	○	○	○	○	-	-	○	●	●	+	
018	Aluminatlauge NA. gesätt. Lösung			20°C	●	+	●	●	●	+	+	+	+	+	+
				50°C	+	+	+	+	●	+	+	+	+	+	+
				100°C	-	○	-	-	-	-	-	●	●	+	+
019	Aluminiumsulfat	Al ₂ (SO ₄) ₃	gesättigt saturated	20°C	+	●	+	●	●	+	+	+	+	+	+
				50°C	+	+	+	+	●	+	+	+	+	+	+
				100°C	-	+	-	○	-	-	-	●	●	+	+
020	Ameisensäure wässrig	CHOOH	10%	20°C	+	●	+	-	○	+	+	+	+	+	○
				50°C	+	+	+	-	○	+	+	+	+	+	○
				70°C	+	+	+	-	○	+	+	+	+	+	○
				50%	20°C	+	+	+	-	-	○	+	+	+	+

Technische Änderungen vorbehalten / Toleranzen Normmaße nach DIN/ANSI, übrige Werte sind Richtwerte
 Technical details to change notice / Tolerances acc. To DIN/ANSI standards, other dimensions approximate

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Item No.	Durchflußmedium fluid	Formel Formula	Konz. Conc.	Temp. Temp.	S+S Hartgummi S+S hard rubber			S+S Weichgummi S+S resilient rubber								
					NR 31-01	NR 31-03	Rep. Set	CR	NR	NBR	CSM	IIR	EPDM	FPM	SBR	
020	Ameisensäure wäßrig (Fortsetzung)	HCOOH	50%	50°C	+	+	+	-	-	○	+	+	+	+	-	
				70°C	+	+	+	-	-	-	○	○	+	+	-	
				98%	20°C	+	+	+	-	-	-	-	-	-	○	-
					50°C	○	○	○	-	-	-	-	-	-	○	-
					80°C	-	○	-	-	-	-	-	-	-	-	-
021	Amidosulfonsäure	NH ₂ SO ₃ H	gesättigt	95°C	+	●	+	●	○	+	+	●	●	+		
022	Ammoniak (Salmiakgeist)	NH ₄ OH	10%	20°C	+	+	+	-	●	○	+	+	+	+	+	
				80°C	○	+	○	-	○		○	●	●	+	○	
				25%	20°C	+	●	+	-	+		+	+	+	+	○
					80°C	○	+	○	-	-		○	●	●	○	○
023	Ammoniakgas, feucht	NH ₃		100°C	-	+	-	-	-	-	-	+	+	○	+	
024	Ammoniumfluorid	NH ₄ F	gesättigt saturated	20°C	●	+	●	●	●		+	+	+	+	+	
				50°C	+	+	+	○	●		+	+	+	+	+	
				95°C	+	+	+	○	-		+	●	●	+	+	
025	Ammoniumbisulfid	NH ₄ HSO ₃	32%	20°C	●	+	●	●	●	+		+	+	+		
				50°C	+	○	+	○	●	+		+	+	+		
				70°C	-	-	-	-	●			+	+	+		
026	Ammoniumchlorid	NH ₄ Cl	gesättigt saturated	20°C	+	●	+	●	●	+	+	+	+	+	+	
				50°C	+	+	+	○	●	+	+	+	+	+		
				100°C	○	+	○	+	-		-	●	●	+	-	
027	Ammoniumnitrat	NH ₄ NO ₃	gesättigt saturated	20°C	●	+	●	●	●	+	+	+	+	+	+	
				50°C	+	+	+	+	●	+	+	+	+	+		
				100°C	○	+	○	+	-	-	-	●	●	+	+	
028	Ammoniumsulfat	(NH ₄) ₂ SO ₄	gesättigt saturated	20°C	+	●	+	●	●	+	+	+	+	+	+	
				50°C	+	+	+	+	●	+	+	+	+	+		
				100°C	○	+	○	+	-	-	-	●	●	+	○	
029	Ammoniumsulfid, wäßrig	(NH ₄) ₂ SO ₃		20°C	+	●	+	●	●	+	+	+	+	+	+	
				50°C	+	+	+	+	●	+	+	+	+	+		
				100°C	○	○	○	+	+	-	-	●	●	+	○	
030	Ammoniumthiosulfat	(NH ₄) ₂ S ₂ O ₃	wässrig	20°C	+	●	+	●	●	+	+	+	+	+		
				50°C	+	+	+	+	●	+	+	+	+	+		
				80°C	○	+	○	+	-	○	○	●	●	+		
031	Amylacetat	C ₅ H ₁₁ CH ₂ COO		20°C	●	+	●	-	○	+	-	○	○	+	-	
				50°C	○	○	○	-	-	-	-	-	-	○	-	
032	Amylalkohol	C ₅ H ₁₁ OH		20°C	+	+	+	+	○	○	+	○	○	+	+	
				100°C	-	○	-	-	-	-	○	-	-	+	+	
033	Anilin/H ₂ O/Salzsäure Formaldehyd 40 vol. %		60%	20°C	+	●	+	+	○	○	-	-	-	+	-	
				80°C	○	+	○	+	-	-	-	-	-	+	+	
034	Äthanolamin			20°C	-	-	-	+						+		
				60°C	-	-	-	○						+		
035	Äther	(C ₂ H ₅) ₂ O		20°C	+	+	+	+	-	+			○	+		
				>30°C	-	-	+	-	-				○	+		
036	Äthylacetat	CH ₃ CO ₂ C ₂ H ₆		20°C	-	○	-	-	-	-	-	○	+	-	+	

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					NR 31-01	NR 31-03	Rep. Set	CR	NR	NBR	CSM	IIR	EPDM	FPM	SBR	
036	Äthylacetat (Fortsetzung)	CH ₃ CO ₂ C ₂ H ₆		50°C	-	-	-	-	-	-	-	-	-	-	-	-
037	Äthylalkohol	C ₂ H ₅ OH		20°C	+	+	+	+	+	+	+	+	●	●	+	+
				50°C	○	○	○	-	○	○	○	○	●	●	○	+
038	Äthylbenzol	C ₆ H ₅ C ₂ H ₆		20°C	-	-	-	-	-	-	-	-	-	-	-	-
039	Äthylencarbonat	(CH ₂ O) ₂ CO ₃	25%	20°C	+	●	+	-	●	+		+	+	+		
				50°C	○	○	○	-	○	+		+	+	+		
040	Äthylenglykol	HO CH ₂ CH ₂ OH		20°C	●	+	●	○	●	+	+	+	+	+	+	+
				50°C	+	+	+	○	●	+	+	+	+	+	+	
				100°C	-	-	-	-	-	○	+	●	●	+	-	
041	Äthylenoxid, trocken	(CH ₂) ₂ O		20°C	●	+	●	●	-	-					○	
042	Bariumcarbonat	BaCO ₃		20°C	●	+	●	●	●	+	+	+	+	+	+	+
				50°C	+	+	+	+	●	+	+	+	+	+	+	
				80°C	○	○	○	○	-	-	-	●	●	+	○	
043	Bariumchlorid	BaCl ₂ · 2H ₂ O	25%	20°C	+	●	+	●	●	+	+	+	+	+	+	+
				50°C	+	+	+	+	●	+	+	+	+	+		
				95°C	○	○	○	○	○	+	○	●	●	+	○	
044	Bariumcyanid	Ba(CN) ₂	wässrig	20°C	+	●	+	●	●	+	+	+	+	+	+	
				60°C	○	○	○	○	-	-	+	●	●	+	+	
045	Bariumhydroxyd	Ba(OH) ₂	wässrig	20°C	+	●	+	●	●	+	+	+	+	+	+	
				60°C	○	+	○	+	○	○	+	●	●	+	+	
046	Bariumsulfat	BaSO ₄		20°C	●	+	●	●	●	+	+	+	+	+	+	
				80°C	○	○	○	○	-	-	○	●	●	+	○	
047	Bariumsulfid	Ba S	wässrig	20°C	●	+	●	+	●	+	+	+	+	+	+	
				80°C	○	○	○	○	-	-	○	●	●	+	○	
048	Benzin (80/110)			20°C	+	+	+	○	-	○	-	-	-	+	-	
				70°C	○	○	○	-	-	○	-	-	-	○	-	
049	Benzoesäure	C ₆ H ₅ COOH	60%	20°C	+	+	+	+	○	+	-	-	+	+	+	
050	Benzol 95% + Salzsäure 5%, konz.			20°C	-	-	-	-	-	-	-	-	-	-	-	
051	Benzolsulfonsäure	C ₆ H ₅ SO ₃ H	20%	20°C	+	+	+	○	-	-	○	-	-	○		
				70°C	+	+	+	-	-	-	○	-	-	○		
052	Bleiacetat	Pb(OOC CH ₃) ₂ · 3H ₂ O	wässrig	20°C	●	+	●	●	●	+		+	+	+		
				80°C	+	+	+	+	-	-		●	●	+		
053	Bleicarbonat	Pb CO ₃		20°C	+	+	+	●	●	+	+	+	+	+		
				80°C	+	+	+	+	-	-	-	●	●	+		
054	Bleichlauge 14gr. CL ₂ /Ltr.			20°C	+	●	+	●	+	+	+	+	+	+	○	
				60°C	○	+	○	+	○	○	+	○	○	+	○	
055	Bleichlauge (Natriumhyperchlorid) 140gr. CL ₂ /Ltr.	NaOCl		20°C	+	●	+	+	○	○	+	+	+	+	○	
056	Bleichchlorid	PbCl ₂	wässrig	20°C	●	+	●	●	●	+	+	+	+	+	+	
				80°C	+	+	+	+	-	-	○	●	●	+	○	
057	Bleisulfat, kristallin	PbSO ₄		20°C	●	+	●	●	●	+	+	+	+	+		
				80°C	+	+	+	+	-	-	○	●	●	+		
058	Bonder 710		3%	50°C	+	+	+	-	+	●	+	+	+	+		

Technische Änderungen vorbehalten / Toleranzen Normmaße nach DIN/ANSI, übrige Werte sind Richtwerte
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Beständigkeitsliste

List of Resistance

Item No.	Durchflußmedium fluid	Formel Formula	Konz. Conc.	Temp. Temp.	S+S Hartgummi S+S hard rubber			S+S Weichgummi S+S resilient rubber							
					NR 31-01	NR 31-03	Rep. Set	CR	NR	NBR	CSM	IIR	EPDM	FPM	SBR
059	Borax (di-Natriumtetacarbonat)	NA ₂ B ₄ O ₇ · 10H ₂ O	10%	50°C	●	+	●	+	●	+	+	+	+	+	
060	Borsäure, wäbrig	H ₃ BO ₃	10%	80°C	●	+	●	●	●	+	+	+	+	+	+
061	Brackwasser			20°C	●	+	●	●	●	+	+	+	+	-	+
				80°C	+	+	+	+	-	-	○	●	●	-	+
062	Bremsflüssigkeit ATE/Glykoläther			20°C	+	+	+	●	+	○	○	●	●	+	+
				80°C	○	○	○	+	-	-	○	+	+	+	+
063	Bromwasser	Br(H ₂ O)		20°C	○	○	○	+	+	+	○	-	-	+	-
				60°C	-	-	-	-	○	○	-	-	-	+	-
064	Buttersäure, wäbrig	C ₄ H ₇ COOH	20%	20°C	●	+	●	○	-	+	-	-	-	+	-
				50°C	+	+	+	+	-	+	-	-	-	+	-
065	Butylacetat (Essigsäurebutylester)	CH ₃ COOC ₄ H ₉	100%	20°C	-	+	+	-	-	-	-	-	-	-	-
				70°C	-	○	-	-	○	-	-	○	○	○	-
066	Butylalkohol	C ₄ H ₉ OH	100%	20°C	+	●	+	○	○	+	+	●	●	●	+
				70°C	○	+	○	○	-	○	○	+	+	+	+
067	Calciumbisulfid, wäbrig	Ca (HSO ₃) ₂	6%	20°C	+	+	+	+	●	+	+	+	+	+	+
				70°C	+	+	+	○	○	○	○	●	●	+	+
068	Calciumcarbonat	Ca (HCO ₃) ₂	wässrig	20°C	+	+	+	+	●	+	+	+	+	+	+
				60°C	+	+	+	○	+	+	+	+	+	+	+
069	Calciumchlorid, wäbrig	CaCl ₂	50%	20°C	+	●	+	●	●	+	+	+	+	+	+
				100°C	○	+	○	+	-	-	-	●	●	+	+
070	Calciumhydroxid (Kalkmilch)	Ca(OH) ₂	gesättigt saturated	20°C	+	●	+	+	●	+	+	+	+	+	+
				95°C	○	○	○	-	-	-	-	●	●	+	○
071	Calciumhypochlorit	Ca(OCl) ₂	14-15% (Cl ₂)/Liter	20°C	+	+	+	-	○	○	+	○	+	+	-
				50°C	○	○	○	-	-	-	+	○	○	+	-
072	Calciumnitrat	Ca(NO ₃) ₂	gesättigt saturated	20°C	+	+	+	+	●	+	+	+	+	+	○
				60°C	+	+	+	+	●	+	+	+	+	+	○
073	Caprolactam	Co(CH ₂) ₅ NH		20°C	+	+	+	+	-	○				+	-
				60°C	-	○	-	-	-	○				+	-
074	Chloral	CCl ₃ CHO	20%	20°C	-	-	-	-						○	-
075	Chloralhydrat	CCl ₃ CH(OH) ₂	20%	20°C	+	+	+	+	○	○	○	+	+	+	-
076	Chlorelektrolyse gesätt. NaCl Sole + Chlor			20°C	+	●	+	●	●	+	+	+	+	+	-
				85°C	○	+	○	○	-	-	○	●	●	+	-
077	Chlorbenzol	C ₆ H ₅ Cl		20°C	-	-	-	-	-	-	-	-	-	○	-
078	Chloressigsäure mono-	ClH ₂ C COOH	60%	20°C	+	+	+	-	-	-	-	-	-	+	-
079	Chlorgas, feucht	Cl ₂		85°C	+	●	+	○	-	-	○	-	-	+	-
080	Chlorgas, trocken	Cl ₂		20°C	+	●	+	+	○	○	+	○	○	+	-
081	Chlorwasser	Cl ₂	gesättigt saturated	50°C	○	○	○	-	-	-	●	+	+	+	-
				95°C	○	○	○	-	-	-	-	○	○	+	-
082	Chromalaun	KCr(SO ₄) ₂ · 12H ₂ O	30%	70°C	●	+	●	●	●	+	+	+	+	+	+
083	Chromsäure	CrO ₃	5%	20°C	○	○	○	-	-	-	●	+	+	+	-
				40%	20°C	-	-	-	-		●	○	○	+	-
084	Citronensäure	C ₆ H ₈ O ₇ · H ₂ O	20%	50°C	+	●	+	●	-	●	-	+	+	+	+
				70°C	+	+	+	+	-	-	-	○	○	+	○

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Beständigkeitsliste

List of Resistance

Item No.	Durchflußmedium fluid	Formel Formula	Konz. Conc.	Temp. Temp.	S+S Hartgummi S+S hard rubber			S+S Weichgummi S+S resilient rubber							
					NR 31-01	NR 31-03	Rep. Set	CR	NR	NBR	CSM	IIR	EPDM	FPM	SBR
084	Citronensäure (Fortsetzung)	C ₆ H ₈ O ₇ ·H ₂ O	70%	50°C	+	+	+	○	-	-	-	○	○	+	+
				95°C	○	+	○	○	-	-	-	-	-	○	○
085	Cyclohexanol	C ₆ H ₁₁ OH	100%	20°C	○	○	○	+	-	○	-	-	-	+	-
				50°C	○	○	○	-	-	-	-	-	-	○	-
086	Cyclohexanon	C ₆ H ₁₀ O	100%	20°C	-	-	-	-	-	○	-	-	-	+	-
087	Diäthyläther	(C ₂ H ₅) ₂ O	100%	20°C	-	-	-	-	-	-	○	-	-	-	-
088	Diäthylenglykol	O (CH ₂ CH ₂ OH) ₂	100%	20°C	●	+	●	+	●	+	+	+	+	+	+
				50°C	+	+	+	+	●	+	+	+	+	+	○
				95°C	+	+	+	○	-	-	○	●	●	+	○
089	Dibutylsebacat	C ₁₈ H ₃₄ O ₄	100%	20°C	●	+	●	-	○	+	-	-	-	+	-
				50°C	+	+	+	-	○	○	-	-	-	+	-
090	Druckluft, ölfrei			80°C	+	+	+	+	+	●	+	+	+	+	+
091	Druckluft, ölhaltig			50°C	○	○	○	+	○	●	+	-	-	+	-
092	Eisen-II-chlorid	FeCl ₂	gesättigt saturated	50°C	●	+	●	●	●	+	+	+	+	+	○
				95°C	+	+	+	+	-	-	-	●	●	+	○
93	Eisen-III-chlorid	FeCl ₃	40%	20°C	●	+	●	●	●	+	+	+	+	+	+
				50°C	+	+	+	○	●	○	+	+	+	+	+
094	Eisennitrat	Fe(NO ₃) ₃ ·9H ₂ O	wässrig	20°C	●	+	●	●	●	+	+	+	+	+	+
				80°C	+	+	+	+	○	○	○	●	●	+	+
095	Eisenphosphat, kristallin	FePO ₄ ·4H ₂ O		20°C	●	+	●	●	●	+	+	+	+	+	+
				80°C	+	+	+	+	○	○	○	●	●	+	+
096	Eisen-II-sulfat	FeSO ₄ ·7H ₂ O	10%	20°C	●	+	●	●	●	+	+	+	+	+	+
				80°C	+	+	+	+	○	○	○	●	●	+	+
097	Essigsäure	CH ₃ COOH	50%	20°C	+	●	+	-	-	○	○	○	+	+	-
				70°C	-	○	-	-	-	-	-	○	○	-	-
				konzentr. concentr.	20°C	○	●	○	-	-	-	-	○	○	-
				50°C	-	○	-	-	-	-	-	-	○	-	
098	Essigsäureanhydrid	(CH ₃ CO) ₂ O	100%	20°C	+	●	+	-	-	-	+	-	-	○	+
				70°C	○	○	○	-	-	-	○	-	-	○	○
099	Essigsäuremethylester (Metylacetat)	CH ₃ COO CH ₃	100%	20°C	-	+	-	-	-	-	-	-	-	○	
				50°C	-	○	-	-	-	-	-	-	-	-	-
100	Fettsäure (Palmitin, Stearin, Ölsäure 1:1:1)	C ₁₅ H ₃₁ COOH + C ₁₇ H ₃₅ COOH + C ₁₇ H ₃₃ COOH		20°C	-	-	-	-	-	-	-	-	-	+	+
				80°C	-	-	-	-	-	-	-	-	-	○	+
101	Flußsäure	H F	70%	20°C	-	-	-	-	-	-	○	-	-	+	○
				50°C	-	-	-	-	-	-	-	-	-	+	○
			50%	20°C	+	+	+	-	-	-	●	+	+	+	○
				50°C	○	-	○	-	-	-	●	○	○	+	○
102	Flußsäuredämpfe			95°C	○	+	○	-	-	-	+	+	+	○	
103	Formaldehyd	HC HO	25%	50°C	●	+	●	-	○	●	+	○	○	+	+
				95°C	+	○	+	-	-	-	-	-	○	+	○
			40%	20°C	+	+	+	+	-	●	+	-	+	+	○
				50°C	+	○	+	-	-	+	-	-	-	○	○

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					NR 31-01	NR 31-03	Rep. Set	CR	NR	NBR	CSM	IIR	EPDM	FPM	SBR	
103	Formaldehyd (Fortsetzung)	HC HO	40%	95°C	○	-	○	-	-	-	-	-	○	○	○	
104	Furfurol	C ₄ H ₃ O CHO	100%	20°C	○	+	○	-				○			○	-
				50°C	-	-	-	-						○	-	
105	Furfurylalkohol (Furfuralkohol)	C ₄ H ₃ O CH ₂ OH	100%	20°C	+	+	+	+		+		+	+	+	-	
				80°C	○	○	○	○		+		+	+	+	-	
106	Gerbsäure (Tannin)	C ₇₆ H ₅₂ O ₄₆	konz.	20°C	●	+	●	●	●	+	+	+	+	+	+	
				70°C	+	+	+	+	●		+	+	○	+	+	
107	Gallussäure	C ₆ H ₂ (OH) ₃ COOH		20°C	●	+	●	●		+				+		
				80°C	+	+	+	+	-	-	-			+		
108	Glaubersalz	Na ₂ SO ₄ 10H ₂ O	wässrig	20°C	●	+	●	+	●	+	+	+	+	+	+	
				gesättigt	80°C	+	+	+	○	○		+	●	●	+	+
109	Glykolsäure	CH ₂ OH COOH	wässrig	20°C	●	+	●	●	+			+	+	+	+	
				80°C	+	+	+	+	-	-	-	+	+	+	○	
110	Glukose	C ₆ H ₁₂ O ₆		20°C	●	+	●	●	●	+	+	+	+	+	+	
				95°C	+	+	+	+	-	-	-	●	●	+	+	
111	Glyzerin	C ₃ H ₈ O ₃		70°C	●	+	●	●	●	+	+	+	+	+	+	
				100°C	+	+	+	+	-	-	○	●	●	+	+	
112	Harnstoff	CO (NH ₂) ₂	gesättigt saturated	20°C	●	+	●	●	●		+	+	+	+	+	
				95°C	+	+	+	+	-			●	●	+	+	
113	Hexan	C ₆ H ₁₄		20°C	○	●	○	●	-	+	○	+	-	+	-	
114	Hydrazinhydrat	N ₂ H ₆ OH	24%	20°C	+	●	+	+	●	+	+	+	+	+	○	
				50°C	+	+	+	○	●	+	+	+	+	○		
				90°C	○	+	○	○	-	-	-	●	●	+	○	
115	Isopropylalkohol (Iso-Propanol)	CH ₃ CHOH CH ₃	100%	20°C	+	●	+	+		+				+	○	
				70°C	-	+	-	○			○			+	○	
116	Isobutylalkohol	(CH ₃) ₂ CH CH ₂ OH	100%	20°C	●	+	●	●		+	+		+	+	+	
117	Kalilauge	KOH	50%	70°C	●	+	●	●	●	-	+	+	+	+	○	
118	Kaliumaluminiumsulfat (Kalialaun)	K ₂ Al ₂ (SO ₄) 24H ₂ O	gesättigt saturated	20°C	●	+	●	●	●	+	+	+	+	+	+	
				80°C	+	+	+	○	○	○	+	●	●	+	+	
119	Kaliumfluorid	KHF ₂	wässrig	20°C	+	+	+	+	●	+	+	+	+	+	+	
				80°C	○	+	○	○	○	○	+	●	●	+	+	
120	Kaliumbromid	KB ₂	wässrig	20°C	+	+	+	+	●	+	+	+	+	+	+	
				80°C	○	+	○	○	-	○	○	●	●	+	+	
121	Kaliumchlorat	KClO ₃	wässrig	20°C	●	+	●	●	○	○	+	+	+	+	○	
				60°C	+	+	+	+	-	-	+	○	○	+	○	
122	Kaliumcarbonat	K ₂ CO ₃	gesättigt saturated	50°C	●	+	●	●	●	+	+	+	+	+	+	
				70°C	+	+	+	+	●	+	+	+	+	○		
123	Kaliumchlorid	KCl	gesättigt saturated	50°C	+	●	+	●	●	+	+	+	+	+	+	
				70°C	+	+	+	+	●	○	+	+	+	+		
				95°C	-	+	-	○	-	-	○	●	●	+	+	
124	Kaliumchrom-III-sulfat (Alaun)	KCr(SO ₄) ₂ 12H ₂ O	gesättigt saturated	20°C	+	●	+	●	●	+	+	+	+	+	+	
				60°C	+	+	+	+	●	+	+	●	●	+	+	
				80°C	○	+	○	+	○	-	○	●	●	+	+	

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					NR 31-01	NR 31-03	Rep. Set	CR	NR	NBR	CSM	IIR	EPDM	FPM	SBR
125	Kaliumcyanid	KCN	gesättigt	20°C	+	+	+	+	●	+	+	+	+	+	+
126	Kaliumdisulfat	K ₂ S ₂ O ₇	30%	20°C	●	+	●	●	●	+	+	+	+	+	+
				80°C	+	+	+	+	○	○	+	●	●	+	○
127	Kaliumdichromat	K ₂ Cr ₂ O ₇	5%	20°C	●	+	●	●	●	+	+	+	+	+	○
				50°C	+	+	+	+	●	+	+	+	+	+	-
				95°C	+	+	+	+	-	-	○	●	●	+	-
128	Kaliumferrocyanid	K ₄ [Fe(CN) ₆]	25%	70°C	+	●	+	●	●	+	+	+	+	+	
				95°C	○	+	○	+	-	-	-	●	●	+	
129	Kaliumhydrogencarbonat	KH CO ₃	30%	70°C	●	+	●	●	●	+	+	+	+	+	
				95°C	+	+	+	+	-	-	-	●	●	+	
130	Kaliumhydrogensulfat (Kaliumbisulfat)	KH SO ₄	30%	70°C	●	+	●	●	●	+	+	+	+	+	
				95°C	+	+	+	+	-	-	-	●	●	+	
131	Kaliumnitrat	KNO ₃	gesättigt saturated	20°C	●	+	●	●	●	+	+	+	+	+	+
				50°C	+	+	+	+	●	+	+	+	+	+	+
				95°C	+	+	+	+	-	-	-	●	●	+	+
132	Kaliumnitrit	KNO ₂	25%	50°C	●	+	●	●	●	+	+	+	+	+	
				95°C	+	+	+	○	-	-	-	●	●	+	
133	Kaliumhydroxyd	KHO	gesättigt saturated	20°C	●	+	●	●	●	+	+	+	+	+	
				80°C	+	+	+	+	○	○	+	●	●	+	
134	Kaliumpermanganat	KMn O ₄	5%	20°C	+	●	+	-	+	+	+	+	+	+	○
				50°C	○	+	○	-	-	-	+	●	●	+	-
			gesättigt	20°C	-	-	-	-	-	-	●	○	○	+	-
135	Kaliumpersulfat	K ₂ S ₂ O ₅	gesättigt saturated	20°C	●	+	●	●	●	+	+	+	+	+	○
				50°C	+	+	+	+	●	+	+	+	+	+	○
136	Kalkmilchaufschlemmung	CA(OH ₂)	20%	20°C	●	+	●	○	●	+	+	+	+	+	○
				60°C	+	+	+	-	●	+	+	+	+	+	○
137	Kisselfluorwasserstoffsäure	H ₂ (SiF ₂)	30%	20°C	+	+	+	+	●	○	+	+	+	+	+
				60°C	+	+	+	○	-	-	●	+	+	+	+
				95°C	-	○	-	-	-	-	○	○	○	+	○
138	Kobaltacetat	Co(CH ₃ COO) ₂	15%	20°C	+	+	+	○							
				50°C	+	+	+	○							
				70°C	○	+	○	○							
139	Kaolinschlamm			20°C	●	+	●	●	●	+	+	+	+	+	+
				80°C	+	+	+	+	○	○	●	●	●	+	+
140	Kesselspeisewasser			20°C	●	+	●	●	●	+	+	+	+	-	+
				80°C	+	+	+	+	○	-	-	●	●	-	+
141	Kochsalz + Chlor		gesättigt	20°C	○	-	○	-	-	○	●	+	+	+	
142	Kohlendioxid	CO ₂		20°C	●	+	●	●	●	+	+	+	+	+	+
				80°C	+	+	+	+	○	○	○	●	●	+	+
143	Kohlenmonoxid	CO	2%	20°C	●	+	●	●	●	+	+	+	+	+	
				80°C	+	+	+	○	○	○	○	●	●	+	
144	Kondensat			20°C	●	+	●	●	●	+	+	+	+	+	+
				80°C	+	+	+	+	○	-	-	●	●	+	+

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145	Kresol, roh(DAB6)	C ₆ H ₄ (CH ₃)OH	100%	20°C	-	-	-	-	-	-	-	-	-	○	-
				80°C	-	-	-	-	-	-	-	-	-	-	-
146	Kresolsulfonsäure	C ₆ H ₄ CH ₂ OHSO ₂ H	10%	20°C	+	●	+	-	-	+	○	-	-	-	+
				50°C	○	+	○	-	-	○	-	-	-	○	
			70%	20°C	-	-	-	-	-	○	-	-	-	-	+
				50°C	-	-	-	-	-	-	-	-	-	-	○
147	Kupferacetat	(CH ₃ COO) ₂ CU	10%	20°C	+	+	+	+	+	+	+	+	+	+	
				80°C	○	○	○	-	-	-	-	-	-	+	
148	Kupferchlorid	CuCl ₂	25%	20°C	●	+	●	●	●	+	+	+	+	+	
				80°C	+	+	+	+	○	○	+	●	●	+	
149	Kupfer (II) nitrat	Cu(NO ₃) ₂	50%	20°C	●	+	●	●	●	+	+	+	+	+	
				60°C	+	+	+	+	●	○	+	+	+	+	
150	Kupfersulfat	CuSO ₄	gesättigt	20°C	+	●	+	●	●	+	+	+	+	+	
				60°C	+	+	+	+	●	○	+	+	+	+	
				100°C	○	+	○	○	-	-	-	●	●	+	
151	Latex			20°C	+	+	+	+	○	●	+		+		
152	Leinöl			20°C	+	+	+		-	+	○	-	-	+	
				80°C	+	+	+		-	+	-	-	-	+	
153	Magnesiumchlorid	MgCl ₂ 6H ₂ O	gesättigt	50°C	●	+	●	●	●	+	+	+	+	+	
				100°C	+	+	+	+	-	○	-	●	●	+	
154	Magnesiumsulfat	MgSO ₄ 7H ₂ O	wässrig	20°C	●	+	●	●	●	+	+	+	+	+	
				80°C	+	+	+	+	○	○	+	●	●	+	
155	Maleinsäure	C ₄ H ₄ O ₄	25%	20°C	+	●	+	○	○	●	+	○	+	-	
				80°C	○	+	○	○	-	-				+	
156	Manganchlorid	MnCl ₂ 4H ₂ O	50%	20°C	+	●	+	●	●	+	+	+	+	+	
				100°C	○	+	○	+	-	-	-	●	●	+	
157	Melasse			20°C	●	+	●	●	●	+	+	+	+	-	
				80°C	+	+	+	+	-	●	-	-	+	+	
158	Methanol	CH ₃ OH		20°C	+	+	+	○	+	+	+	●	●	+	
				60°C	○	○	○	-	○	○	○	●	●	○	
159	Methylacetat	CH ₃ COOCH ₃		20°C	-	-	-	-	-	-	-	-	-	○	
				50°C	-	-	-	-	-	-	-	-	-	-	
160	Methyldiglykol	CH ₃ O CH ₂ CH ₂ O CH ₂ CH ₂ OH	100%	20°C	+	+	+	○	-	●	-	+	+		
161	Methyläthylketon	CH ₃ CO•C ₂ H ₅		20°C	-	○	-	-	-	-	-	-	-		
162	Methylenchlorid	CH ₂ CL ₂		20°C	-	-	-	-	-	-	-	-	-		
163	Milchsäure	CH ₃ CH(OH) COOH	konzentr. concentr.	20°C	+	●	+	●	○	●	○		○	○	
				50°C	+	+	+	+	-	●	○		○	+	
				95°C	○	+	○	+	-	-	○		○	+	
164	Naphtalinsulfonsäure	C ₁₀ H ₇ SO ₃ H	20%	20°C	+	●	+	●	○	●					
				50°C	+	+	+	+	-	○			+		
				95°C	○	+	○	+	-	-			○		
165	Naphtalin-1,5-Disulfonsäure	C ₁₀ H ₆ (SO ₃ H) ₂	40%	20°C	+	●	+	●		●					

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Beständigkeitsliste

List of Resistance

Item No.	Durchflußmedium fluid	Formel Formula	Konz. Conc.	Temp. Temp.	S+S Hartgummi S+S hard rubber			S+S Weichgummi S+S resilient rubber							
					NR 31-01	NR 31-03	Rep. Set	CR	NR	NBR	CSM	IIR	EPDM	FPM	SBR
165	Naphthalin-1,5-Disulfonsäure (Amstrongsäure)	C ₁₀ H ₆ (SO ₃ H) ₂	40%	50°C	+	+	+	+		+				+	
				95°C	○	+	○	+		-				+	
166	Natriumacetat	CH ₃ COO Na 3H ₂ O	gesättigt saturated	20°C	●	+	●	●	+	+			+	+	+
				50°C	+	+	+	+	○	+			+	+	+
				95°C	+	+	+	+	-	-			●	●	+
167	Natriumcarbonat	Na ₂ CO ₃	gesättigt saturated	20°C	+	●	+	●	●	+	+	+	+	+	+
				50°C	+	+	+	+	●	+	+	+	+	+	+
				100°C	○	+	○	+	-	-	○	●	●	+	+
168	Natriumchlorat	NaClO ₃	35%	50°C	●	+	●	●	●	+	+	+	+	+	-
				95°C	+	+	+	+	-	-	+	○	○	+	-
169	Natriumchlorid	NaCl	gesättigt saturated	20°C	+	●	+	●	●	+	+	+	+	+	+
				50°C	+	+	+	+	●	+	+	+	+	+	+
				100°C	○	+	○	+	-	-	○	●	●	+	+
170	Natriumcyanid	NaCN	gesättigt saturated	20°C	+	●	+	●	●	+	+	+	+	+	
				80°C	○	+	○	○	○				●	●	+
171	Natriumdichromat	Na ₂ Cr ₂ O ₇ 2H ₂ O	7,5%	20°C	●	+	●	●	●	+	+	+		+	
				95°C	+	+	+	+	-	-	-	●	●	+	
				10%	20°C	●	+	●	●	●	+	+	+	+	+
172	Natriumdithionit	NO ₂ S ₂ O ₄	10%	50°C	+	+	+	+	●	+	+	+	+	+	
				95°C	+	+	+	+	-	-	○	●	●	+	
173	Natriumhydrogen-Carbonat	Na HCO ₃	10%	20°C	+	+	+	+	●	+	+	+	+	+	
174	Natriumhydrogensulfid	Na HSO ₃	38%	20°C	●	+	●	●	●	+	+	+	+	+	
				50°C	+	+	+	+	●	○	○	+	+	+	
175	Natriumhypochlorid (Chlorbleichlaug)	NaOCl	13-15 gr. (Cl ₂)/l	20°C	+	●	+	●	●	+	+	+	+	+	-
				30°C	+	+	+	+	○	○	●	○	○	+	-
176	Natriumnitrat	NaNO ₃	gesättigt concentr.	20°C	+	●	+	●	●	+	+	+	+	+	+
				50°C	+	+	+	+	●	+	+	+	+	+	
				100°C	○	+	○	+	-	-	-	●	●	+	+
177	Natriumnitrit	NaNO ₂	gesättigt concentr.	20°C	●	+	●	●	●	+	+	+	+	+	
				50°C	+	+	+	+	●	+	+	+	+	+	
178	Natriumperborat	NaBO ₂ H ₂ O ₂ 3H ₂ O	2%	50°C	+	+	+	○	●	+	+	+	+	+	
				95°C	-	○	-	○	-	-	-	●	●	+	○
179	Natriumperchlorat	NaClO ₄	20%	50°C	+	●	+	●	●	+	+	+	+	+	
				95°C	+	+	+	+	-	-	-	●	●	+	+
180	Natriumphosphat, sek.	Na ₂ NPO ₄ + 12H ₂ O	30%	50°C	●	+	●	+	●	+	+	+	+	+	
				80°C	+	+	+	○	○	○	+	●	●	+	○
181	Natriumphosphat, prim.	NaH ₂ PO ₄ 2H ₂ O	10%	20°C	●	+	●	+	●	+	+	+	+	+	
				80°C	+	+	+	-	○	○	+	●	●	+	+
182	Natriumsulfat	Na ₂ SO ₄ 10H ₂ O	gesättigt saturated	20°C	●	+	●	●	●	+	+	+	+	+	
				80°C	+	+	+	+	○	-	+	●	●	+	+
183	Natriumsulfit	Na ₂ SO ₃ 7H ₂ O	10%	20°C	+	●	+	●	●	+	+	+	+	+	

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Item No.	Durchflußmedium fluid	Formel Formula	Konz. Conc.	Temp. Temp.	S+S Hartgummi S+S hard rubber			S+S Weichgummi S+S resilient rubber								
					NR 31-01	NR 31-03	Rep. Set	CR	NR	NBR	CSM	IIR	EPDM	FPM	SBR	
183	Natriumsulfid (Fortsetzung)	Na ₂ SO ₃ 7H ₂ O	10%	50°C	+	+	+	+	●	+	+	+	+	+	○	
				100°C	+	+	+	+	-	-	-	●	●	+	○	
184	Natriumthiosulfat	Na ₂ S ₂ O ₃ SH ₂ O	25%	50°C	●	+	●	●	●	+	+	+	+	+	+	
				95°C	+	+	+	+	-	-	○	●	●	+	○	
185	Natronlauge	NaOH	20%	20°C	+	●	+	●	●	○	+	+	+	+	○	
				60°C	+	+	+	+	●	-	+	+	+	○	○	
				100°C	○	+	-	-	-	-	-	-	-	-	-	
				50%	20°C	+	●	+	●	●	+	+	+	+	+	○
			60°C	+	+	+	+	●	+	+	+	+	○	○		
			100°C	○	+	-	-	-	-	-	-	-	-	-		
			70%	60°C	+	●	+	●	●	○	+	+	+	+	○	
			100°C	○	+	-	-	-	-	-	-	-	-	-		
186	Nickelchlorid	NiCl ₂ 6H ₂ O	gesättigt saturated	20°C	+	+	+	+	●	+	+	+	+	+	+	
				80°C	+	+	+	+	○	-	+	●	●	+	○	
187	Nickelsulfat	NiSO ₄ 6H ₂ O	gesättigt saturated	20°C	●	+	●	●	●	+	+	+	+	+	+	
				80°C	+	+	+	+	○	-	+	●	●	+	+	
188	Nitrodioxyd, trocken	NO ₂	5%	50°C	+	+	+	○	●	○	+	+	+	+		
189	Oel (ASTM 1)								+						+	
	Oel (ASTM 2)								○		+				+	
	Oel (ASTM 3)								-		+				+	
	Oel (ASTM 4)								-		○				-	
190	Oxalsäure	C ₂ H ₂ O ₄ 2H ₂ O	10%	50°C	+	+	+	+	○	-	-	+	+	+	○	
				95°C	-	○	-	-	-	-	○	-	-	○	○	
			25%	50°C	+	+	+	+		●		+	+	+	○	
				95°C	-	○	-	-	-	-	-	-	-	○	○	
191	Ozon	O ₃	1,5 gr/l	30°C				○	○	-	-	+	○	+	+	-
			0,8 gr/L	30°C												
192	Paraffinoel			50°C	+	+	+	+	-	●	○	-	+	+	-	
				80°C	-	○	-	-	-	●	-	-	○	+	-	
193	Perchloräthylen	C ₂ Cl ₄		20°C	-	-	-	-	-	○	-	-	-	+	-	
194	Perchlorsäure	HClO ₄	wässrig	20°C	-	-	-	+						○	○	-
195	Petroleum			20°C	+	+	+	○	+	+				-	+	-
				50°C	+	+	+	○		○				-	+	-
				95°C	○	+	○	-	-	○				-	○	-
196	Phenol	C ₆ H ₅ OH	5%	20°C	+	+	+	-	-	-	○	-	-	+	-	
				50°C	+	-	+	-	-	-	-	-	-	+	-	
				70°C	-	-	+	-	-	-	-	-	-	○	-	
197	Phenolnatrium		gesättigt saturated	20°C	+	+	+	●		●					+	
				60°C	○	+	○	+		+					+	
				100°C	-	○	-	+		-						
198	Phenolsulfonsäure	C ₆ H ₄ OH SH ₂ O	33%	20°C	●	+	●	●	●	●					+	
				50°C	+	+	+	+		○					+	
199	Phosphorsäure, ortho.	H ₃ PO ₄	25%	100°C	●	+	●		-	-	○	●	●	+	○	

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Beständigkeitsliste

List of Resistance

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					NR 31-01	NR 31-03	Rep. Set	CR	NR	NBR	CSM	IIR	EPDM	FPM	SBR
199	Phosphorsäure, ortho.	H ₃ PO ₄	75%	50°C	●	+	●	+	●	+	+	+	+	+	○
				80°C	+	+	+	+	-	-	○	●	●	+	-
				50°C	+	●	+	+	-	-	+	●	●	+	-
				80°C	-	○	-	-	-	○	●	●	+	-	
200	Phosphorsäure, super	H ₄ P ₂ O ₇ (P ₂ O ₅)	70%	20°C	-	-	-	○	-	-	+	+	+	+	-
				70°C	-	-	-	○	-	-	○	○	+	+	-
201	Phthalsäure	C ₆ H ₄ (COOH) ₂	10%	50°C	+	●	+	-	-	●	-	-	-	+	-
				70°C	+	+	+	-	-	●	-	-	-	+	-
				95°C	-	○	-	-	-	-	-	-	-	○	-
202	Pikrinsäure	C ₅ H ₂ OH (NO ₂) ₃	5%	20°C	+	●	+	○	○	+	+	+	+	+	○
				50°C	+	+	+	○	-	○	○	○	○	+	○
				70°C	○	+	○	-	-	-	-	-	-	○	○
203	Primalu 410 (1:3 in Wasser)			50°C	+	+	+	+	-	-	-	-	-	-	
204	Propionsäure	C ₂ H ₅ COOH	konz.	20°C	+	+	+	-	-	+	-	-	-	+	-
205	Prophylalkohol, iso	CH ₃ CH ₂ CH ₂ OH		20°C	●	+	●	○	+	+	+	●	●	+	-
				80°C	+	○	+	-	-	-	○	○	○	○	-
206	Prophlbenzol	CH ₃ CH ₂ CH ₂ C ₆ H ₆		20°C	-	-	-	-	-	-	-	-	-	-	
207	Pyridin	C ₅ H ₅ N		20°C	-	-	-	-	-	-	-	-	-	-	
208	Quecksilber(II)chlorid	HgCl ₂	gesättigt saturated	20°C	+	+	+	+	●	+	+	+	+	+	+
				60°C	○	○	○	-	○	○	○	○	○	○	
209	Rauchgase			20°C	●	+	●	●	+	●	○	○	-	+	-
				100°C	+	+	+	+	-	○	-	○	-	+	-
210	Rizinusöl			20°C	+	+	+	-	-	●	○	○	-	+	-
				40°C	○	○	○	-	-	+	-	-	-	+	-
211	Salicylsäure	C ₆ H ₄ OH COOH	gesättigt saturated	20°C	+	+	+	+	-	+	-	-	-	+	+
				80°C	+	+	+	-	-	○	-	-	-	+	○
212	Salpetersäure	HNO ₃	5%	20°C	+	+	+	+	○	+	+	-	+	+	-
				70°C	-	-	+	-	-	-	+	-	+	+	-
				20°C	+	+	+	+	-	-	●	-	+	+	-
			10%	50°C	○	-	○	-	-	-	●	-	+	+	-
				20°C	○	○	○	-	-	-	●	-	+	+	-
			30%	50°C	-	-	-	-	-	-	●	-	○	○	-
20°C	+	+		+	+	+	+	+	+	+	+	+			
213	Salzsäure	HCl	10%	20°C	+	+	+	+	●	+	+	+	+	+	+
				50°C	+	+	+	+	●	+	+	+	+	+	
				95°C	+	+	+	-	-	-	○	●	●	+	-
			20%	20°C	+	+	+	+	●	+	+	+	+	+	○
				50°C	+	+	+	○	●	○	+	+	+	+	-
				95°C	○	+	+	-	-	-	○	●	●	+	-
			30%	20°C	+	+	+	○	●	○	+	+	+	+	-
				50°C	+	+	+	○	●	-	+	+	+	+	-
			konz.	20°C	+	+	+	○	○	-	+	●	●	+	-
				50°C	○	+	○	○	-	-	+	●	●	+	-
214	Schwefeldioxid, feucht	SO ₂	20%	20°C	●	+	●	●	●	+	+	+	+	+	

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					NR 31-01	NR 31-03	Rep. Set	CR	NR	NBR	CSM	IIR	EPDM	FPM	SBR
214	Schwefeldioxid, feucht (Fortsetzung)	SO ₂	20%	50°C	+	+	+	+	●	-				+	+
215	Schwefelkohlenstoff	CS ₂	100%	20°C	-	-	-	-	-	-	○	-	-	+	-
216	Schwefelsäure	H ₂ SO ₄	25%	50°C	●	+	●	●	○	+	+	●	●	+	○
				70°C	+	+	+	+	-	-	●	+	+	+	○
				95°C	+	+	+	+	-	-	●	+	+	+	-
			50%	50°C	+	+	+	+	-	-	+	●	●	+	○
				70°C	+	+	+	+	-	-	●	+	+	+	○
				95°C	○	+	○	○	-	-	●	-	-	+	-
			60%	20°C	+	+	+	+	○	-	●	+	+	+	-
				50°C	+	+	+	+	-	-	●	+	+	+	-
				70°C	○	+	○	○	-	-	●	○	○	+	-
			70%	20°C	+	+	+	+	-	-	●	+	+	+	-
				50°C	+	+	+	+	-	-	○	-	-	+	-
				70°C	-	-	-	○	-	-	-	-	-	+	-
80%	20°C	-	-	-	+	-	-	●	-	-	+	-			
	50°C	-	-	-	-	-	-	○	-	-	+	-			
217	Schweflige Säure	H ₂ SO ₃	6%	20°C	+	+	+	-	●	-	+	+	+	+	
218	Schwefelwasserstoff, trocken	H ₂ S		20°C	+	+	+	○	○					+	○
219	Schwefelwasserstoff	H ₂ S	gesättigt	20°C	+	+	+	+	●	○	+	+	+	+	○
220	Seewasser			50°C	●	●	●	●	●	+	+	+	+	-	+
				70°C	+	+	+	+	●	○	+	+	+	-	○
				100°C	○	+	○	+	-	-	-	○	○	-	○
221	Seifenlösung			20°C	+	●	+	●	●	+	+	+	+	+	+
				50°C	+	+	+	+	●	+	+	●	●	+	+
				80°C	○	+	○	+	-	-	-	●	●	+	+
222	Silberchlorid	AgCl		20°C	●	+	●	●	●	+	+	+	+	+	+
				80°C	+	+	+	+	-	-	+	●	●	+	○
223	Silbernitrat	AgNO ₃	10%	20°C	+	●	+	+	●	+	+	+	+	+	○
				60°C	+	+	+	+	●	○	+	+	+	+	○
				95°C	○	+	○	○	-	-	○	●	●	+	○
224	Siliconoel			20°C	+	+	+	+	+	○	○	○	+	+	○
				100%	20°C	○	+	○	○	-	-	-	○	+	+
225	Siliziumtetrachlorid	SiCl ₄	konz.	20°C	+	+	+	-	-	-	○			+	
				40°C	○	○	○	-							
226	Spinnbadsäure	H ₂ SO ₄ 200mg/ICS ₂ 200mg/IH ₂ S	25%	20°C	+	●	+	+	○	-	●	+	+	+	
				80°C	○	+	○	○	-	-	●	+	○	+	
227	Stearinsäure	H ₁₇ H ₃₆ COOH	100%	20°C	+	●	+	+	●	+	+	○	+	+	+
				60°C	○	+	○	○	-	●	○	○	+	+	+
				100°C	-	-	-	-	-	-	-	-	○	+	-
228	Sulfurchlorid			20°C	-	-	-	-				○	+		
229	Stickoxydul	N ₂ O	4%	20°C	+	+	+	○							
				50°C	○	○	○	-							
				80°C	○	○	○	○							

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Beständigkeitsliste

List of Resistance

Item No.	Durchflußmedium fluid	Formel Formula	Konz. Conc.	Temp. Temp.	S+S Hartgummi S+S hard rubber			S+S Weichgummi S+S resilient rubber								
					NR 31-01	NR 31-03	Rep. Set	CR	NR	NBR	CSM	IIR	EPDM	FPM	SBR	
230	Tannin	C ₂₆ H ₅₂ O ₄₆	konzentr. concentr.	20°C	●	+	●	+	●	+		+	+	+	+	
				60°C	+	+	+	-	●	-		+	+	+	+	
231	Tetrachlorkohlenwasserstoff	CCl ₄		20°C	-	-	-	-	-	-	-	-	-	-	-	
				50°C	-	-	-	-	-	-	-	-	-	-	-	
232	Tetrahydrofuran	(CH ₂) ₄ O		20°C	-	-	-	-	-	-	-	-	-	-	-	
233	Thioglykolsäure	HS-CH ₂ -COOH	konzentr.	80°C	○	+	○	-								
234	Titandioxid (Aufschlemmung)	TiO ₂		80°C	+	+	+	+			+	+	+	+	+	
235	Toluol	C ₆ H ₅ CH ₃	100%	20°C	-	-	-	-	-	-	-	-	-	○	-	
236	Trafoöl			20°C	○	○	○	-	-	+	-	-	-	-	+	-
				60°C	○	○	○	-	-	+	-	-	-	-	+	-
				100°C	-	-	-	-	-	-	-	-	-	-	+	-
237	Traubenzucker	C ₆ H ₁₂ O ₆	gesättigt saturated	20°C	●	●	●	●	●	+	+	+	+	+	+	
				60°C	+	+	+	+	●			+	+	+	+	
				100°C	○	+	○	+	-	-	-	●	●	+	+	
238	Triäthanolamin	N(CH ₂ -CH ₂ OH) ₃		20°C	+	+	+	●	-	+	○	-	○	+	-	
				60°C	+	+	+	+	-	+	-	-	-	+	-	
				100°C	○	○	○	+	-	-	-	-	-	○	-	
239	Trichloräthylen	ClHC=CCl ₂		20°C	-	-	-	-	-	-	-	-	-	○	-	
240	Trichloressigsäure	Cl ₃ C-COOH		20°C	○	○	○	-	-	-	-	-	-	○	○	
241	Trinkwasser	H ₂ O		80°C	+	+	+	+	●	+	+	+	+	-	○	
242	Wasser, dest.	H ₂ O		20°C	●	●	●	+	●	+	+	+	+	-	+	
				60°C	+	+	+	+	●	+		+	+	-	+	
				100°C	○	+	○	-	-	-		+	+	-	+	
243	Wasserglas		wässrig		+	+	+	●	●	+	+	+	+	+	+	
244	Wasserstoffsuperoxid	H ₂ O ₂	5%	20°C	+	+	+	+	○		●	+	+	+	-	
				50°C	-	-	-	-	-						-	
245	Weinsäure	(CHOH-COOH) ₂	wässrig	20°C	+	●	+	○	+	+	+	+	+	+	+	
				80°C	○	+	○	○	-	○				+	+	
246	Xylol	C ₈ H ₁₀ (CH ₃) ₂		20°C	-	-	-	-	-	-	-	-	-	-	+	-
				30°C	-	-	-	-	-	-	-	-	-	-	○	-
				70°C	-	-	-	○	-	-	-	-	-	-	○	-
247	Zinkchlorid	ZnCl ₂	10%	20°C	●	+	●	●	●	+	+	+	+	+	+	
				60°C	+	+	+	+	●	+	+	+	+	+		
				80°C	+	+	+	+	○	-	+	●	●	+	+	
248	Zinkoxyd (Feststoff)	ZnO		70°C	+	●	+	●	●	+	+	+	+	+	+	
				95°C	○	+	○	+	+	+	+	●	●	+	+	
249	Zinksulfat	ZnSO ₄ ·7H ₂ O	gesättigt saturated	50°C	+	+	+	●	●	+	+	+	+	+		
				70°C	○	+	○	+	●	○	+	+	+	+		
				95°C	-	○	-	+	-	-	+	●	●	+		
250	Zinnchlorid	SnCl ₂	25%	50°C	+	●	+	+	●	+	+	+	+	+		
				70°C	+	+	+	○	●	○	+	+	+	+		
				95°C	○	+	○	-	-	-	+	●	●	+		
251	Zinnsulfat	SnCO ₄	20%	20°C	●	+	●	●	●	+	+	+	+	+		

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251	Zinnsulfat (Fortsetzung)	SnCO ₄	20%	80°C	+	+	+	+	●	○	+	+	+	+	+
252	Zitronensäure	C ₆ H ₈ O ₇ , H ₂ O	gesättigt saturated	20°C	+	●	+	●	●	+	+	+	+	+	+
				80°C	+	+	+	+	○	●	+	○	○	+	+
253	Zuckersaft, roh		gesättigt saturated	20°C	●	●	●	●	●	+		+	+	+	-
				60°C	+	+	+	+	●	+	+	+	+	+	-
				80°C	○	+	○	+	○	○	○	○	●	●	+