

# 9 Medium handled

## 9.1 Medium handled

Media description	Media group	Chemical formula	Cons. max. [%]	PH max.	Temp max. {C}	Model	Material shaft seal			
							rotor	stator	elas-tomer	elas-tomer
Acetic acid	Acid	(CH <sub>3</sub> COOH	5		20	V	SiC	Ca	EPDM	EPDM
Acetic anhydride	Weak acid derivative	(CH <sub>3</sub> CO) <sub>2</sub> O	20		20	V	SiC	Ca	EPDM	EPDM
Acetone	Ketone	(CH <sub>3</sub> ) <sub>2</sub> CO				VC	SiC	Ca	EPDM	EPDM
Acetyl chloride		CH <sub>3</sub> COCl			40	VS	SiC	Ca	EPDM	EPDM
Alcaline (bottle rinse)	Rinsing		2	< 9.5	40	V	TuC	TuC	HNBR	HNBR
Alcohol (Ethanol)	Hydrocarbon	C <sub>2</sub> H <sub>5</sub> OH	100		60	V	SiC	Ca	EPDM	EPDM
Alum (potassium aluminium sulphate)	Salt	MI MIII (SO <sub>4</sub> ) <sub>2</sub>	3		80	VS	SiC	Ca	FPM	FPM
Aluminium chloride	Halide	AlCl <sub>3</sub>	5		50	VS	SiC	Ca	EPDM	EPDM
Aluminium chloride	Halide	AlCl <sub>3</sub>	25		20	VS	SiC	Ca	EPDM	EPDM
Aluminium sulphate	Salt	Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>			20	V	SiC	Ca	EPDM	EPDM
Aluminium sulphate	Salt	Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>	5		Boiling	VS	SiC	Ca	EPDM	EPDM
Ammonia	Strong base	NH <sub>3</sub>				VC	SiC	Ca	EPDM	EPDM
Ammonium bicarbonate	Salt	(NH <sub>4</sub> )HCO <sub>3</sub>	10		40	V	SiC	Ca	EPDM	EPDM
Ammonium sulphate	Salt	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	20		60	V	SiC	Ca	EPDM	EPDM
Antifreeze (glycol base, salt-free)	Alcohol		45		110	V	SiC	Ca	EPDM	EPDM
Beer (not lathery / under pressure)	Alcohol		100		15	V	SiC	Ca	EPDM	EPDM
Benzene	Hydrocarbon solvent	C <sub>6</sub> H <sub>6</sub>				VS	SiC	Ca	FPM	FPM
Boric acid	Acid	H <sub>3</sub> BO <sub>3</sub>				V	SiC	Ca	EPDM	EPDM
Buttermilk	Dairy product	fats + water	100		60	V	SiC	Ca	EPDM	EPDM
Butyl alcohol (butanol)	Hydrocarbon	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>3</sub> OH					SiC	Ca	EPDM	EPDM
Calcium acetate	Salt	C <sub>4</sub> H <sub>6</sub> O <sub>4</sub> Ca	10		60	VS	SiC	Ca	EPDM	EPDM
Calcium nitrate (non-acidic)	Salt	Ca(NO <sub>3</sub> ) <sub>2</sub>	10		60	VS	TuC	TuC	FPM	FPM
Cider (apple cider)	Alcohol	H <sub>2</sub> O + sucrose + alcohol	100		40	V	SiC	Ca	EPDM	EPDM
Citric acid	Acid	C <sub>3</sub> H <sub>4</sub> (OH)(CO OH) <sub>3</sub>	5		20	VS	SiC	Ca	FPM	FPM
Copper sulphate	Salt	CuSO <sub>4</sub> ·5H <sub>2</sub> O	5		80	V	TuC	TuC	HNBR	HNBR
Corn oil	Vegetable oil		100		100	VS	SiC	Ca	FPM	FPM
Diesel oil	Hydrocarbons					V	SiC	Ca	FPM	FPM
Diethylene glycol (salt-free)	Alcohol	C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	100		100	VC	SiC	Ca	EPDM	EPDM
Ethanol (alcohol)	Hydrocarbon	C <sub>2</sub> H <sub>5</sub> OH	100		60	V	SiC	Ca	EPDM	EPDM
Ethylene glycol (salt-free)	Alcohol	(CH <sub>2</sub> OH) <sub>2</sub>	100		100	V	SiC	Ca	EPDM	EPDM
Ferric-III-chloride	Salt	FeCl <sub>3</sub>	5		80	V	TuC	TuC	FPM	FPM

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							rotor	stator	elastomer	
Fuel oil (light)	Hydrocarbon				80	VS	SiC	Ca	FPM	FPM
Glycerin (glycerol)	Alcohol	C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>	40		80	V	SiC	Ca	EPDM	EPDM
Kerosene	Hydrocarbon		100		80	V	SiC	Ca	FPM	FPM
Linseed oil	Vegetable oil		100		60	V	SiC	Ca	FPM	FPM
Linseed oil + 3% sulphur acid	Vegetable oil		100		60	V	SiC	Ca	FPM	FPM
Magnesium sulphate	Salt	MgSO <sub>4</sub>	10		80	V	SiC	Ca	FPM	FPM
Malic acid	Acid	C <sub>4</sub> H <sub>2</sub> O <sub>3</sub>				V	SiC	Ca	FPM	FPM
Methanol	Alcohol	CH <sub>3</sub> OH				V	SiC	Ca	EPDM	EPDM
Methyl glycol (propylene glycol)	Alcohol	C <sub>3</sub> H <sub>6</sub> (OH) <sub>2</sub>	100		20	VC	SiC	Ca	EPDM	EPDM
Milk	Dairy product	fats + water				V	SiC	Ca	EPDM	EPDM
Olive oil	Vegetable oil					VC	SiC	Ca	FPM	FPM
Oxalic acid	Acid	H <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	5		20	V	SiC	Ca	EPDM	EPDM
Oxalic acid	Acid	H <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	5		Boiling	VS	SiC	Ca	FPM	FPM
Oxalic acid	Acid	H <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	10		60	V	SiC	Ca	EPDM	EPDM
Paraffins	Hydrocarbon					V	SiC	Ca	FPM	FPM
Peanut oil	Vegetable oil		100		90	V	SiC	Ca	FPM	FPM
Petroleum	Hydrocarbon	Hydrocarbon	100		80	V	SiC	Ca	FPM	FPM
Potassium chlorate	Salt	KClO <sub>3</sub>				VS	TuC	TuC	HNBR	HNBR
Potassium chloride	Salt	KCl				V	SiC	Ca	EPDM	EPDM
Potassium hydroxide	Salt	KOH	5		40	VS	SiC	Ca	EPDM	EPDM
Potassium nitrate	Salt	KNO <sub>3</sub>	5		30	VS	TuC	TuC	HNBR	HNBR
Potassium sulphate	Salt	K <sub>2</sub> SO <sub>4</sub>	3		20	VS	SiC	Ca	FPM	FPM
Rape-seed oil	Vegetable oil	mixture			100	VS	SiC	Ca	FPM	FPM
Sodium carbonate	Salt	Na <sub>2</sub> CO <sub>3</sub>	6		60	V	SiC	Ca	EPDM	EPDM
Sodium chloride	See sea water	NaCl								
Sodium hydroxide (soda lye)	Salt	NaOH	5		50	VS	TuC	TuC	HNBR	HNBR
Sodium nitrate (non acidic)	Salt	NaNO <sub>3</sub>	10		60	V	SiC	Ca	EPDM	EPDM
Sodium phosphate	Salt	Na <sub>3</sub> PO <sub>4</sub>				V	SiC	Ca	EPDM	EPDM
Sodium sulphate (non acidic)	Salt	Na <sub>2</sub> SO <sub>4</sub>	5		60	V	SiC	Ca	EPDM	EPDM
Soybean oil	Vegetable oil		100		100	V	SiC	Ca	FPM	FPM
Spirits	Alcohol	H <sub>2</sub> O + sucrose + alcohol	40		60	V	SiC	Ca	EPDM	EPDM
Sulphuric acid	Acid	H <sub>2</sub> SO <sub>4</sub>	5		30	VS	TuC	TuC	FPM	FPM
Tannic acid	Acid	C <sub>76</sub> H <sub>52</sub> O <sub>46</sub>	20		80	V	SiC	Ca	FPM	FPM
Tartaric acid	Acid	C <sub>4</sub> H <sub>6</sub> O <sub>6</sub>	8		40	VS	SiC	Ca	FPM	FPM
Vinegar (wine vinegar)	Acid	CH <sub>3</sub> COOH	10		60	VS	SiC	Ca	EPDM	EPDM
Water, untreated / suspended solids <20 ppm	Water	H <sub>2</sub> O + ...	100		60	VC	TuC	Ca	EPDM	EPDM
Water, boiler feed water (conform. Vd TÜV 1466	Water	H <sub>2</sub> O + ...	100		120	VC	TuC	Ca	EPDM	EPDM E425
Water, brackish	Sea water	H <sub>2</sub> O + ...	100	7	5	V	TuC	TuC	FPM	FPM
Water, brackish	Sea water	H <sub>2</sub> O + ...	100	7	10	V	TuC	TuC	FPM	FPM
Water, brackish	Sea water	H <sub>2</sub> O + ...	100	7	15	VS	TuC	TuC	FPM	FPM

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							rotor	stator	elastomer	Material pump elastomer
Water, brackish	Sea water	H <sub>2</sub> O + ...	100	7	20	VS	TuC	TuC	FPM	FPM
Water, brackish	Sea water	H <sub>2</sub> O + ...	100	7	25	VS	TuC	TuC	FPM	FPM
Water, coast water	Sea water	H <sub>2</sub> O + ...	100	7	5	VS	TuC	TuC	FPM	FPM
Water, coast water	Sea water	H <sub>2</sub> O + ...	100	7	10	VS	TuC	TuC	FPM	FPM
Water, coast water	Sea water	H <sub>2</sub> O + ...		7	15	VS	TuC	TuC	FPM	FPM
Water, condensate (conform Vd TÜV 1466)	Water	H <sub>2</sub> O + ...	100		100	VS	TuC	Ca	EPDM	EPDM
Water, cooling water	Water	H <sub>2</sub> O + ...			100	VS	TuC	TuC	HNBR	HNBR
Water, de-carbonised (softened)	Water	H <sub>2</sub> O + ...	100		120	V	TuC	TuC	HNBR	HNBR
Water, de-ionised	Water	H <sub>2</sub> O + ...			120	V	SiC	Ca	EPDM	EPDM
Water, distilled	Water	H <sub>2</sub> O + ...				V	SiC	Ca	EPDM	EPDM
Water, fire fighting	Water	H <sub>2</sub> O + ...	100		60	VC	TuC	TuC	HNBR	HNBR
Water, harbour	Sea water	H <sub>2</sub> O + ...	100	7	5	VS	TuC	TuC	FPM	FPM
Water, harbour	Sea water	H <sub>2</sub> O + ...	100	7	10	VS	TuC	TuC	FPM	FPM
Water, heating (conform Vd TÜV 1466)	Water	H <sub>2</sub> O + ...	100		120	VC	SiC	Ca	EPDM	EPDM
Water, (conform VDI 2035)	Water	H <sub>2</sub> O + ...	100		100	VC	TuC	Ca	EPDM	EPDM
Water, oil water mixture	Water		5		80	V	SiC	Ca	FPM	FPM
Water, ordinary sea water	Sea water	H <sub>2</sub> O + ...	100	7	5	V	TuC	TuC	FPM	FPM
Water, ordinary sea water	Sea water	H <sub>2</sub> O + ...	100	7	10	VS	TuC	TuC	FPM	FPM
Water, ordinary sea water	Sea water	H <sub>2</sub> O + ...	100	7	15	VS	TuC	TuC	FPM	FPM
Water, ordinary sea water	Sea water	H <sub>2</sub> O + ...	100	7	20	VS	TuC	TuC	FPM	FPM
Water (Ozon 0.5 mg/l)	Water	H <sub>2</sub> O + ...			25	V	SiC	Ca	EPDM	EPDM
Water, pure (chemically neutral)	Water	H <sub>2</sub> O + ...	100		60	V	SiC	Ca	EPDM	EPDM
Water, rinsing	Water	H <sub>2</sub> O + ...			70	VS	TuC	TuC	FPM	FPM
Water, swimming-pool (chlorine 0.8 mg/l)	Water	H <sub>2</sub> O + ...			25	VS	SiC	Ca	FPM	FPM
Water, tap (drinking water)	Water	H <sub>2</sub> O + ...	100		60	V	SiC	Ca	EPDM	EPDM WRC/ ACS