

NORMAC[®]**900R/RF CHEMICAL RESISTANCE GUIDE**

This chart has been compiled as a guide to service Normac 900R and RF cements under constant temperature and immersion conditions. It should be used as a general guide, not as an absolute standard of performance.

KEY:	Number	Maximum temperature (°C) at which the product can be used.
	pH	The pH of a solution measures the concentration of acidity or alkalinity. Seven (7) is the neutral point of the scale. A solution is increasingly alkaline from 7 to 14 and increasingly acidic from 7 to 0.
	AMB	Service is satisfactory at normal ambient temperature.
	ID	Insufficient data.
	NR	Not recommended.
	SC	Special consideration. Contact our office for further technical information.

<u>Chemicals</u>	<u>% Conc.</u>	<u>Remarks</u>	<u>Key</u>	<u>Chemicals</u>	<u>% Conc.</u>	<u>Remarks</u>	<u>Key</u>
Acetic Acid	Any	No harmful impurities	NR	Chlorine (Gas)	Any	Wet	NR
Alcohol, Ethyl	Any		AMB	Chlorine Dioxide	Any		NR
Alum	Any		95	Chlorine Water	1%		NR
Aluminum Chloride	Any	pH over 6	65	Chrome Alum	Any		95
Aluminum Chloride	Any	pH under 6	NR	Chrome Acid	1%		SC
Aluminum Nitrate	Any	pH over 6.5	38	Chrome Acid	10%		NR
Aluminum Sulfate	Any		95	Citric Acid	10%		40
Ammonia Solution	Any		NR	Copper Nitrate	Any	pH over 6.5	70
Ammonium Acetate	10%	pH over 6	40	Copper Sulfate	Any		95
Ammonium Alum	Any		95	Cresylic acid	Any		NR
Ammonium Chloride	Any	pH over 6	65	Cupric Nitrate	Any	pH over 6.5	70
Ammonium Chloride	Any	pH under 6	NR	Cupric Sulfate	Any		95
Ammonium Hydroxide	Any		NR	Ethylene Glycol	Any		NR
Ammonium Nitrate	Any	pH over 6.5	95	Ferric Chloride	25%	pH over 6	35
Ammonium Sulfate	Any		95	Ferric Chloride	25%	pH under 6	NR
Arsenic Acid	Any		40	Ferric Nitrate	10%	pH over 6.5	SC
Barium Carbonate	Any		65	Ferrous Ammonium Sulfate	Any		95
Barium Chloride	Any	pH over 6	65	Ferrous Chloride	Any	pH over 6	SC
Barium Chloride	Any	pH under 6	NR	Ferrous Sulfate	Any		35
Barium Hydroxide	Any		95	Fluoboric Acid	Any		40
Barium Nitrate	Any	pH over 6.5	95	Fluosilicic Acid	Any		40
Barium Sulfate	Any		95	Formaldehyde	37%		NR
Barium Sulfide	Any		SC	Formic Acid	Any		NR
Borax	Any		95	Gasoline	Any		NR
Boric Acid	Any		95	Glauber's Salts	Any		95
Brine Solution	Any		95	Hydrobromic Acid	Any		NR
Bromine Water	Any		NR	Hydrochloric Acid	3%		NR
Butyl Alcohol	Any		SC	Hydrochloric Acid	Any	Over 3%	NR
Cadmium Cyanide	Any		70	Hydrofluoric Acid	1%		SC
Calcium Acetate	Any		SC	Hydrofluoric Acid	20%		NR
Calcium Bisulfate	Any		80	Hydrofluosilicic Acid	Any		40
Calcium Bisulfite	Any		NR	Hydrogen Peroxide	30%		NR
Calcium Bleach	Any		SC	Hydrogen Sulfide	Any		NR
Calcium Carbonate	Any		95	Hypochlorous Acid	Any		NR
Calcium Chloride	Any	pH over 6	85	Iodine	Any		NR
Calcium Chloride	Any	pH under 6	NR	Kerosene	Any		NR
Calcium Hydroxide	Any		95	Kraft Liquor	Any		SC
Calcium Hypochlorite	Any		SC	Lactic Acid	Any	Pure	45
Calcium Nitrate	Any	pH over 6.5	95	Lead Chloride	Any	pH over 6	95
Calcium Oxide	Any	Dry	95	Lead Chloride	Any	pH under 6	NR
Calcium Sulfate	Any		80	Lead Nitrate	Any	pH over 6.5	45
Carbolic Acid	Any		NR	Lead Sulfate	Any		45
Carbon Dioxide	Any		95	Lime, Dry	Any		95
Carbon Disulfide	Any		NR				
Carbonic Acid	Any		95				
Caustic Soda	25%		105				
Caustic Soda	Any	Over 25%	105				

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Lime, Slaked	Any		95	Chloride	Any	pH over 6	95
Lithium Chloride	Any	pH over 6	95	Chloride	Any	pH under 6	NR
Lithium Chloride	Any	pH under 6	NR	Chromate	Any	pH over 6	65
Lye	25%		105	Cyanide	Any		65
Lye	Any	Over 25%	105	Dichromate	Any	pH over 6	65
Magnesium Carbonate	Any	Basic	95	Ferricyanide	Any		NR
Magnesium Chloride	Any	pH over 6	95	Ferrocyanide	Any		NR
Magnesium Chloride	Any	pH under 6	NR	Hydroxide	25%		105
Magnesium Hydroxide	Any		95	Hydroxide	Any	Over 25%	105
Magnesium Nitrate	Any	pH over 6.5	95	Hypochlorite	5%	pH over 9	40
Magnesium Oxide	Any		95	Hypochlorite	5%	pH under 9	NR
Magnesium Sulfate	Any		95	Iodine	Any	pH over 6.5	95
Maleic Acid	10%		40	Nitrate	Any	pH over 6.5	95
Malic Acid	Any		40	Nitrite	Any	pH over 6.5	65
Manganese Ammonium Sulfate	Any		95	Oleate	10%		40
Manganese Chloride	Any	pH over 6	70	Permanganate	Any	pH over 7.0	NR
Manganese Chloride	Any	pH under 6	NR	Phosphate	Any	Mono-Di or Tri-Basic	95
Manganese Sulfate	Any		95	Silicate	Any		95
Mercuric Chloride	10%	pH over 6	NR	Sulfate	Any		95
Methanol	Any	No harmful impurities	AMB	Sulfite	Any	pH over 6	65
Methyl Alcohol	Any	No harmful impurities	AMB	Thiosulfate	Any		AMB
Muriatic Acid	3%		NR	<u>Sodium Compounds:</u>	<u>See corresponding Potassium Compounds</u>		
Muriatic Acid	Any	Over 3%	NR	Stannic Chloride	Any	pH over 6	65
Nickel Acetate	Any	pH over 6	40	Stannic Chloride	Any	pH under 6	NR
Nickel Ammonium Sulfate	Any		95	Stannous Chloride	Any	pH over 6	40
Nickel Chloride	Any	pH over 6	95	Stannous Chloride	Any	pH under 6	NR
Nickel Chloride	Any	pH under 6	NR	Sulfite Liquors	Any		SC
Nickel Sulfate	Any		95	Sulfur Dioxide, Wet	Any		NR
Niter	Any	pH over 6.5	95	Sulfuric Acid	25%		75
Nitric Acid	5%		NR	Sulfuric Acid	40%		25
Nitric Acid	Any	Over 5%	NR	Sulfurous Acid	6%		NR
Nitrous Acid	Any		NR	Tannic Acid	Any		95
Oleum	Any	Undiluted	NR	Tartaric Acid	Any		40
Oleum	Any	Diluted	SC	Tin Chloride	Any	pH over 6	SC
Oxalic Acid	10%		95	Tin Chloride	Any	pH under 6	SC
Perchloric Acid	10%		NR	Trisodium Phosphate	Any	pH under 6	95
Phenol	Any		NR	Uric Acid	Any		AMB
Phosphoric Acid	Any		SC	Water, Chlorinated			SC
<u>Potassium or Sodium Compounds:</u>				Water, Distilled			50
Acetate	Any	pH over 6	40	Water, Fresh, Potable			NR
Acid Sulfate	Any		75	Water, Fresh, Non-potable			65
Alum	Any		95	Water, Salt			95
Aluminum Sulfate	Any		95	Water, Sea	Any		95
Bicarbonate	Any		95	Zinc Acetate	Any		SC
Bichromate	Any	pH over 6	65	Zinc Chloride	30%	pH over 6	65
Bisulfate	Any		75	Zinc Chloride	30%	pH under 6	NR
Bisulfite	Any		NR	Zinc Sulfate	30%		65
Carbonate	Any		95				

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