

Media and Application Guide

This BALON "Media and Application Guide" provides assistance to the engineer in selecting the best material for a particular service. The final selection of materials however, requires the judgment of the user because it may

be necessary to sacrifice certain physical properties of a material to take better advantage of others.

Information contained in the following chart is believed to be reliable and is intended to be used by trained personnel at their own discretion and

risk. Due to many factors which affect the rate of corrosion, we suggest that final acceptability be established by test under actual operating conditions.

Ratings are based on media at ambient temperatures except as noted.

E – Excellent G – Good F – Fair U – Unsatisfactory BLANK – Insufficient Data

MEDIA*	VALVE MATERIAL			SEAT and SEAL MATERIAL				MEDIA*	VALVE MATERIAL			SEAT and SEAL MATERIAL			
	Carbon Steel	Ductile Iron	316 SS	Buna-N	Viton	Nylon	TFE		Carbon Steel	Ductile Iron	316 SS	Buna-N	Viton	Nylon	TFE
Air	E	E	E	E	E	E	E	JP-4 Fuel	E	E	E	E	E	E	E
Alcohols	G	G	E	E	E	F	E	JP-5 Fuel	E	E	E	E	E	E	E
Amines	E	E	E	U	U	E	E	JP-6 Fuel	E	E	E	E	E	E	E
Ammonia, Anhydrous	E	G	E	F	U	E	E	Kerosene	G	G	E	E	E	E	E
- Aqueous	E	E	E	F	U	G	E	Liquefied Pet. Gas (LPG)	G	G	G	E	E	E	E
- Solutions	G	G	E	F	U	G	E	Lubricating Oil	E	E	E	E	E	E	E
Benzene or Benzol	G	G	E	U	E	E	E	Mercaptan	G	G	E	U	E	G	E
Brines	F	F	G	E	E	E	E	Methane	E	E	E	E	E	E	E
Bunker Oils (Fuels)	G	G	E	E	E	E	E	Muriatic Acid	U	U	U	G	E	U	E
Butane	E	E	E	E	E	E	E	Naphtha	G	G	E	G	E	E	E
Carbolic Acid (Phenol)	U	U	G	U	G	U	E	Naphthalene	E	G	E	U	E	E	E
Carbon Dioxide, Dry	E	F	E	G	G	G	E	Natural Gas	E	E	E	E	E	E	E
Carbonic Acid	U	U	G	G	E	E	E	Nitrogen	E	E	E	E	E	E	E
Carbon Tetrachloride, Dry	F	F	E	U	E	E	E	Oil, Animal	E	F	E	E	E	E	E
- Wet	U	U	G	U	E	E	E	- Cottonseed	F	F	G	E	E	E	E
Carbonated Water	G	G	E	E	E	G	E	- Fish	G	G	E	E	E	E	E
Crude Oil, Sweet	E	E	E	E	E	E	E	- Fuel	G	G	E	E	E	E	E
- Sour	G	G	E	U	G	G	E	- Lube	E	E	E	E	E	E	E
Diethylamine (DEA)	E	E	E	U	U	E	E	- Mineral	G	G	E	E	E	E	E
Diesel Fuels	E	E	E	E	E	E	E	- Petroleum, Refined	E	G	E	E	E	E	E
Dowtherm A and E	G	G	E	U	E	E	E	- Petroleum, Sour	G	G	E	U	G	G	E
Drilling Mud	G	G	E	E	E	E	E	Oil-Water Mixtures	E	E	E	E	E	E	E
Ethane	E	E	E	E	E	E	E	Paraffin	G	G	E	G	E	E	E
Ethylene	E	E	E	U	E	E	E	Pentane	G	G	E	U	E	E	E
Ethylene Glycol	G	G	G	E	E	G	E	Producer Gas	G	G	G	E	E	E	E
Fuel Oil	G	G	E	E	E	E	E	Propane	E	E	E	E	E	E	E
Gas, Manufactured	G	G	G	E	E	E	E	Propyl Alcohol	E	E	E	E	E	E	E
- Natural	G	G	E	E	E	E	E	Propylene Glycol	E	E	E	E	E	F	E
- Odorizers	G	G	E	U	E	G	E	Sea Water	U	U	E	E	E	E	E
Gasoline, Leaded	E	G	E	G	E	E	E	Sodium Acetate	G	G	G	G	U	G	E
- Unleaded	E	G	E	F	E	E	E	- Hydroxide, Cold, 20%	E	E	E	G	G	E	E
- Aviation	E	G	E	G	E	E	E	- Hydroxide, Hot, 20%	F	F	G	G	G	G	E
- Motor	E	G	E	F	E	E	E	- Hydroxide, Cold, 50%	G	G	G	F	F	F	F
- Sour	G	G	E	F	E	E	E	- Hydroxide, Hot, 50%	G	G	G	U	F	U	F
Glycols	G	G	G	E	E	G	E	- Hydroxide, Cold, 70%	F	F	G	U	F	U	F
Heptane	E	E	E	E	E	E	E	- Hydroxide, Hot, 70%	G	F	G	U	F	U	U
Hexane	E	E	E	E	E	E	E	Steam (212°F)	E	E	E	U	U	U	E
Hydraulic Oil								Stoddard Solvent	G	G	G	E	E	G	E
- Petroleum Base	E	E	E	E	E	E	E	Sulfur Dioxide (Dry)	G	G	E	U	U	F	E
- Phosphate Base	E	E	E	U	E	E	E	Sulfuric Acid, 0-7%	U	U	U	F	E	U	E
Hydrochloric Acid, Air Free	U	U	U	F	E	U	E	- 20%	U	U	U	U	E	U	E
Hydrofluoric Acid	U	U	U	U	U	U	F	- 50%	U	U	U	U	E	U	E
Hydrogen Gas	G	G	E	E	E	E	E	- 100%	G	G	E	U	E	U	E
Hydrogen Sulfide, Dry	G	G	E	F	F	E	E	Toluene or Toluol	E	E	E	U	E	E	E
- Wet	F	U	G	U	F	E	E	Water, Distilled, Aerated	U	U	E	E	G	E	E
Illuminating Gas	E	E	E	E	E	E	E	- Fresh	F	F	E	E	E	E	E
Iso-Octane	E	G	E	E	E	E	E	- Sea	U	U	E	E	E	E	E
Isopropyl Alcohol	G	G	G	G	E	G	E	Wax Emulsions	E	G	E	E	E	E	E
- Ether	E	G	E	G	U	E	E	Waxes	E	E	E	E	E	E	E
								Xylene, Dry	E	E	E	U	E	E	E

* Consult Oklahoma City for compatibility of Aluminum Bronze material.