## **Application**

## **Chemical Compatibility Chart**

These tables alphabetically list commonly used materials of various chemical composition. After each fluid listing you will find the basic hose tube and fitting materials rated according to their chemical resistance to each individual fluid. The chart is intended to be used as a guide only. Consult the Boston Weatherhead Division of Dana Corporation for further information.

WARNING – Selection of Hose: Selection of the proper hose for the application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to selection of the hose for your application can result in serious bodily injury or property damage from spraying fluids or flying projectiles. In order to avoid serious bodily injury or property damage resulting from selection of the wrong hose, you should carefully review the information in this catalog.

WARNING – Proper Selection of Hose Fittings: Selection of the proper fittings for the hose end application is essential to the proper operation and safe use of the hose and related equipment. Inadequate attention to the selection of the fittings for your application can result in serious bodily injury or property damage resulting from spraying fluids or flying projectiles. In order to avoid serious bodily injury or property damage resulting from selection of the wrong fitting, you should carefully review the information in this catalog.

WARNING — The following list of chemicals is offered as a guide to the chemical resistance properties of the tube material of the hoses shown. It should be used as a guide only, as the degree of resistance of any elastomer to a particular fluid depends upon such variables as temperature, consentration, pressure conditions, velocity of flow, duration of exposure, aeration, stability of the fluid, etc.

Therefore, when in doubt, it is advisable not to use the hose. If this is not practical, tests should be devised that simulate actual service conditions as nearly as possible. Boston Weatherhead offers additional technical assistance. Contact your Boston Weatherhead representative for assistance or call Technical Support at 1-800-776-3262.

FLUID	HOSE MATERIAL												SE E		FLUID HOSE MATERIAL										HOSE EN				
	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon	Nylon/Nylon II	EPDM	Hypalon	Hytrel	Polyurethane	CPE	Brass	Steel	316 Stainless		PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon	Nylon/Nylon II	EPDM	Hypalon	Hytrel	Polyurethane	CPE	Brass	Steel	316 Stainless
Acetaldehyde Acetic Acid (Concentrated) Acetic Acid (Diluted) Acetic Anydride Acetic Anhydride Acetone Acrylonitrile Air Alcohols (Methanol & Ethanol) Aluminum Fluoride Aluminum Fluoride Aluminum Sulfate Aluminum Sulfate Aluminum Sulfate Aluminum Sulfate Aluminum Hydroxide Ammonia, Anhydrous Ammonia Solution (10%) Ammonium Chloride Ammonium Hydroxide Ammonium Hydroxide Ammonium Phosphate Ammonium Sulfate Amyl Acetate Amyl Acetate Amyl Alcohol Aniline Aniline Dyes Animal Oils and Fats Anti-Freeze (Glycol Base) Aqua Regia Asphalt Barium Chloride Barium Hydroxide	Ad XXFXXGGXGGGGGGXGGXGFGXXXXGGXXGGG	XXXGXXGGGGGGGXGXFGGXGGG	WIN XXXGXXGGGGGGGGXGGFGGGXGXFGGXGGGG	N X X F X X X G G G F G G G X F G G G G X F X F	00000000000000000000000000000000000000	N G X F X G G G G X X G G F X G X G G G G	<u> </u>	MH FXFFFXGGGGGGGXGGGGGXGXFFGXXGGG	14 XXGXF - GGG GXXXGXGGGXGXXGGX - GGX	RA XXXXXXGXGGGGGXXGXXFGXXXXXXXXXGXG	- GGGGGGGXGGGXXGGGGXXXFGXFGGG	₽₽¶ XXXXG - GGXXXXXXXXXX - XXGGXXGG - GXXX	as XXXFGGGFXXFXXXGGF · XXFFGXGGXGFGX	G G G F G G G F X G G F G F G F G G X G G G G	Calcium Bisulfite Calcium Chloride Calcium Hydroxide Calcium Hydroxide Calcium Hydroxide Cancium Hypochlorite Cane Sugar Liquors Carbon Dioxide (Dry) Carbon Dioxide (Wet) Carbon Dioxide (Bisulfide) Carbon Dioxide (Hot) Carbon Tetrachloride Carbonic Acid Castor Oil Cellosolve Acetate Chlorinated Solvents Chlorocetic Acid Chloroform Chlorosulfonic Acid Chromic Acid (Under 25%) Citric Acid Coke Oven Gas Copper Chloride Copper Sulfate Com Syrup (non-food) Cottonseed Oil Creosote Cresol Dextrose (food grade)	XGGGGGG - XXXXGXXXXXXFXGXGGGFXXX	GGGFFGGGXFXGGXXXXXXXXXFXGGGGFXX	GGGFFGGGXFXGGXXXXXXXXXFXGGGGFXX	GGGGFGGGXFXGFXXXXXXXXXXGXFGFXXXX	© © © © © © © © © © © © © © © © © © ©	G F X F F G G G X X G X G F F X G G X X X X	GGGGGGGXFXGFFXFXXXGGGXGGGFXXX	GGGFFGGGXGXGGFXXXXXGGGXGGFFFXX	GXGGFGG - XGFXFXXXXXXXXG - GGGGXXX	XGGXXXGGGFXFFXXXXXXXXXXGGGGFXX	GXGGGGG - XGXXGXXXXXXXXXXXG - GFGX	GXXFFFGFGXGXGXGXFGXXXXFXX - GF - G	GXFGXGGGGFGXGXGXFGFXXXGXXGG - GG	$\circ$
Barium Sulfide Beet Sugar Liquors Benzaldehyde Benzene, Benzol Benzoic Acid Black Sulfate Liquor Borax Boric Acid Brake Fluid (Glycol Ether Base) Brine Butane Butyl Acetate	G X X X X G G	G G X X X F F G X G X	G X X X F F G X G X	G X X G G G G F G X	0000000000	G G G X F G G G G	X F X X G G G G	G X X F G G X G H	G X X X G G G - G	X X X X X G G X X	G X F F G X G G	XXFGFXGXG - G	X G F G X G G X G X G	GGGFGGGF	Dibromoethane Dichlorobenzene Diesel Fuel Diethanolamine Diethylenetriamine Dowtherm A Enamel (Solvent Base) Ethanolamine Ethers (Ethyl Ether) Ethyl Alcohol (To 150°)	X	X X X G F F X F F X G X	X $X$ $X$ $X$ $X$ $X$ $X$ $Y$	X	6 6 6 6 6 6 6 6 6 6	XGGGXXXGXFGG	F X X X G G X X G X G G	X X X F X X X X X X G X	- X F X X X X - X G F	X	- X G G G X X G G G F	G G X - X G X G F G	G G G - F - G G G G	0 . 000 . 000000

**CODES:** G – Good resistance. F – Fair resistance. X – Incompatible. – No data available.

**NOTE:** All data given herein is believed to be accurate and reliable, but presented without guarantee, warranty, or responsibility of any kind, express or implied, on our part. Chemical resistance will vary with the wide diversity of possible mixtures and service conditions. It is therefore not possible to give any guarantee whatsoever in individual cases.

<sup>▲</sup> In all applications, the cover must be pinpricked.

## **Chemical Compatibility Chart**

**Application** 

 $\textbf{CODES:} \quad G-Good \ resistance. \quad F-Fair \ resistance. \quad X-Incompatible. \quad -No \ data \ available.$ 

**NOTE:** All data given herein is believed to be accurate and reliable, but presented without guarantee, warranty, or responsibility of any kind, express or implied, on our part. Chemical resistance will vary with the wide diversity of possible mixtures and service conditions. It is therefore not possible to give any guarantee whatsoever in individual cases.

<sup>∆</sup> Use approved Freon Hose.

 $<sup>\</sup>begin{tabular}{ll} $\blacktriangle$ In all applications, the cover must be pinpricked. \end{tabular}$ 

<sup>\*</sup>This chemical has some deteriorative effects, but the elastomer is still adequate for moderate service.

Application

## **Chemical Compatibility Chart**

FLUID	HOSE MATERIAL												SE I		T FLUID	HOSE MATERIAL									HOSE END FITTINGS				
	PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon	Nylon/Nylon II	EPDM	Hypalon	Hytrel	Polyurethane	CPE	Brass	Steel	316 Stainless		PVC	Nitrile	Vinyl Nitrile	Neoprene	Teflon	Nylon/Nylon II	EPDM	Hypalon	Hytrel	Polyurethane	CPE	Brass	Steel	316 Stainless
Sodium Perborate Sodium Peroxide Sodium Phosphates Sodium Silicate Sodium Sulfate Sodium Sulfate Sodium Sulfide Sodium Thiosulfate Soybean Oil Stannic Chloride Steam 450° Stearic Acid Stoddard Solvent Sulfur Sulfur Chloride Sulfur Dioxide Sulfuric Acid (Under 50%) Sulfuric Acid (51% to 70%) Sulfuric Acid (71% to 95%) Sulfuric Acid (96% to 98%) Styrene	G X	G F G G G G G G X F G X X X X X X X	G F G G G G G G X F G X X X X X X X	X F F G G G G F X X F F X X X X X X X	GGGGGGGGGGGGGGGG	G X G G G G G X X G G X F X X X X X G	GGGGGGFGGFXXXGGFFXX	XFGGGGGGXFXFFXGGFXX	GGFGGG - GGXGG - XXXXXX	XXGGGGGGGXGG - X - XXXXX	X	FXFFFXXGXFXGXXXXXXXG	FFFFXXGXFXGXX - XXXXG	F G G G G X G G X X X X X	Tar Tartaric Acid Tartarchloroethane Tetrahydrofuran (THF) Toluene Transmission Oil (Petrol. Based) Trichloroethane Trichloroethylene Tung Oil Turpentine Urea (Water Solution) Varnish Vegetable Oil (Non-food) Vinyl Acetate Water Water-Glycol mixture Water-Petroleum mixture Xylene Zinc Chloride Zinc Chloride Zinc Sulfate	X G X X X G X F X G - X G G	F G X X X G X X G F X X G X G G X G G	F G X X X G X X G F X X G X G G G X G G	F F X X X F X X F X G X X X G G F X G G	000000000000000000000000	$\circ \times \circ \circ$	XGXXXXXXXGXXFGGXXGG	XGXXXFXXFXGXGXGGFXGG	GGX - XGXXGFG XGXGFX -	F G X X X G X G X G X X X G G	GGXXXGXXXFGF GGGXXX	FF GGGGFF - GGFFFGGXX	FX GGGGGGGGGGGFGFGXX	G F G G G G G G G G G G G X G

**CODES:** G – Good resistance. F – Fair resistance. X – Incompatible. – No data available.

**NOTE:** All data given herein is believed to be accurate and reliable, but presented without guarantee, warranty, or responsibility of any kind, express or implied, on our part. Chemical resistance will vary with the wide diversity of possible mixtures and service conditions. It is therefore not possible to give any guarantee whatsoever in individual cases.

For compatibility of fluids not listed with this chart, contact Technical Support at 1-800-776-3262.

<sup>\*</sup>This chemical has some deteriorative effects, but the elastomer is still adequate for moderate service.