

## PARA Chemical Resistance

### HC4 Diaphragm Valves

The PARA bonnet is manufactured by injection moulding in Polyaryl Amide (PARA). Polyaryl Amide is a glass reinforced high performance resin, that retains its mechanical properties in humid environments, offers improved heat ageing, retains its strength and stiffness at elevated temperatures and has excellent chemical resistance for use in hostile environments.

The chemical resistance of PARA has been investigated and a summary of its resistance

to various chemicals is given below. However, in common with most thermoplastics, the resistance of PARA to chemicals is also dependent on stress levels and on temperature. These conditions, particularly those of stress and strain, are difficult to reproduce in the laboratory. The table, therefore, should be used as a guide, and the user should satisfy themselves beforehand of the suitability of PARA for the in-service environment.

**Chemical compatibility:** (R = recommended NR = not recommended Q = questionable)

Chemical	PARA	Chemical	PARA	Chemical	PARA
Acetic acid (100%)	NR	Heptane	R	Oils vegetable	R
Acetone	R	Hexane	R	Oleic acid	R
Alcohol (all types)	R	Hydrochloric acid (20%)	NR	Oxalic acid (50%)	NR
Ammonia (10%)	R	Hydrochloric acid (35%)	NR	Ozone, ppm range	R
Benzene	R	Hydrogen fluoride (anhydrous)	NR	Palmitic acid	R
Brake Fluid	R	Hydrogen peroxide (30%+A90)	NR	Perchloric acid (10%)	NR
Carbon dioxide	R	Hydrogen sulphide	R	Perchloric acid (70%)	NR
Carbon disulfide	Q	Iodine (wet)	NR	Perchloroethylene	R
Chloroacetic acid (50%)	NR	Isoctane	R	Phenol (10%)	NR
Chlorine gas	NR	Kerosene (jet fuel)	R	Phosphoric acid (30%)	NR
Chlorine water (max .5ppm)	R	Lactic acid (80%)	NR	Phtalic acid	R
Chlorobenzene	R	Lead acetate	R	Polyvinyl acetate	R
Chloroform	R	Lubricating oil	R	Silver nitrate	R
Chromic acid (50%)	NR	Mercuric chloride	NR	Sulfamic acid (20%)	NR
Citric acid	R	Methyl chloride	R	Sulfer chloride	NR
Cresol (Metacreosol)	NR	Methylene chloride	NR	Sulfer dioxide	R
Cyclohexane	R	Methyl ethyl ketone	R	Sulfuric acid (60%)	NR
Detergents	R	Mineral oil	R	Tetrahydrofuran	R
Ethyl acetate	R	Mineral spirits	R	Toluene	R
Ethyl ether	R	Motor oil	R	Tributyl phosphate	R
Ethylene glycol	R	Naphtha	R	Trichloroacetic acid	NR
Formaldehyde (37%)	R	Nitric acid (30%)	NR	Trichloroethylene	R
Formic acid	NR	Nitric acid (50%)	NR	Turpentine	R
Fuel oil	R	Nitric acid (fuming)	NR	Urea	R
Gasoline	R	Nitrobenzene	NR	Vinegar	NR
Glucose	R	Nitrous acid	NR	White Spirit	R
Glycerol	R	Nitrous oxide (dry)	NR	Zinc chloride/sulfate	NR

The information shown in this technical datasheet has been prepared by Crane Process Flow Technologies Ltd to the best of its information, knowledge and belief and, where appropriate, using information as to the composition of certain of the chemicals supplied by third parties. Accordingly, Crane Process Flow Technologies Ltd accepts no responsibility for any loss, damage or injury direct or indirect of any nature and howsoever arising from or in connection with the information shown in this technical datasheet.

**Crane Process Flow Technologies**  
**Saunders HC4 Products**  
 9860 Johnson Road  
 Montgomery, Texas 77316  
[www.cranesaunders.com](http://www.cranesaunders.com)  
 PH 936-588-4447  
 Fax 936-588-8302

**CRANE**®

Saunders® is a registered trademark of Crane Process Flow Technologies Ltd