

Elastomer Compatibility Guide

Listed below are fluids commonly pumped.

The elastomer compatibility is for guidance purposes only as this may be affected by temperature.

The fluid viscous behaviour type shown relates to general terms - in some instances Pseudoplastic fluids can have Thixotropic tendencies.

(†) - Fluid can become Dilatant at high concentration and high shear rate.

(‡) - If low concentration, this can be Newtonian.

Name of Fluid Pumped	Elastomer Material				Viscous Behaviour Type
	NBR	EPDM	FPM	PTFE	
ACETIC ACID		✓		✓	Newtonian
ACETONE		✓		✓	Newtonian
ADHESIVE - SOLVENT BASED				✓	Pseudoplastic
ADHESIVE - WATER BASED		✓		✓	Pseudoplastic
ALUM SLUDGE	✓	✓	✓	✓	Pseudoplastic
AMMONIUM HYDROXIDE		✓		✓	Newtonian
ANIMAL FAT			✓	✓	Newtonian
BABY BATH			✓	✓	Pseudoplastic
BABY LOTION			✓	✓	Pseudoplastic
BABY OIL			✓	✓	Newtonian
BATH FOAM			✓	✓	Pseudoplastic
BATTER		✓	✓	✓	Pseudoplastic
BEER		✓	✓	✓	Newtonian
BENTONITE SUSPENSION	✓	✓	✓	✓	Pseudoplastic (†)
BISCUIT CREAM			✓	✓	Pseudoplastic
BISULPHITE	✓	✓	✓	✓	Newtonian
BITUMEN	✓		✓	✓	Pseudoplastic
BLACK LIQUOR			✓	✓	Newtonian
BLEACH		✓	✓	✓	Newtonian
BLOOD		✓	✓	✓	Newtonian
BODY LOTION			✓	✓	Pseudoplastic
BODY SCRUB			✓	✓	Pseudoplastic
BRINE	✓	✓	✓	✓	Newtonian
BUTTER		✓	✓	✓	Pseudoplastic
CALCIUM CARBONATE SLURRY	✓	✓	✓	✓	Pseudoplastic
CARAMEL - COLOURING		✓	✓	✓	Newtonian
CARAMEL - TOFFEE		✓	✓	✓	Pseudoplastic
CASTOR OIL	✓		✓	✓	Newtonian
CELLULOSE ACETATE DOPE				✓	Pseudoplastic
CELLULOSE SUSPENSION	✓	✓	✓	✓	Pseudoplastic
CERAMIC SLIP	✓	✓	✓	✓	Pseudoplastic (‡)

Name of Fluid Pumped	Elastomer Material				Viscous Behaviour Type
	NBR	EPDM	FPM	PTFE	
CHEESE		✓	✓	✓	Pseudoplastic
CHEWING GUM				✓	Pseudoplastic
CHINA CLAY SLURRY	✓	✓	✓	✓	Pseudoplastic (†)
CHOCOLATE			✓	✓	Pseudoplastic
CHROMIC ACID			✓	✓	Newtonian
CHUTNEY		✓	✓	✓	Pseudoplastic
CITRIC ACID	✓	✓	✓	✓	Newtonian
COAL TAR			✓	✓	Newtonian
COCOA BUTTER			✓	✓	Newtonian
COCOA LIQUOR			✓	✓	Pseudoplastic
COCONUT CREAM			✓	✓	Pseudoplastic
COLLAGEN GEL		✓	✓	✓	Pseudoplastic
CONDENSED MILK		✓	✓	✓	Pseudoplastic
COPPER SULPHATE		✓	✓	✓	Newtonian
CORN STEEP LIQUOR		✓	✓	✓	Newtonian
CORN SYRUP	✓	✓	✓	✓	Newtonian
COSMETIC CREAM			✓	✓	Pseudoplastic
COUGH SYRUP		✓	✓	✓	Pseudoplastic
CRUDE OIL			✓	✓	Pseudoplastic
CUSTARD		✓	✓	✓	Pseudoplastic
DAIRY CREAM		✓	✓	✓	Pseudoplastic
DETERGENT - AMPHOTERIC			✓	✓	Newtonian
DETERGENT - ANIONIC	✓	✓	✓	✓	Pseudoplastic (‡)
DETERGENT - CATIONIC			✓	✓	Newtonian
DETERGENT - NONIONIC		✓	✓	✓	Newtonian
DIESEL OIL	✓		✓	✓	Newtonian
DODECYL BENZENE SULPHONIC ACID			✓	✓	Newtonian
DRILLING MUD	✓	✓	✓	✓	Pseudoplastic
DYE		✓	✓	✓	Newtonian
EGG		✓	✓	✓	Pseudoplastic
ENZYME SOLUTION		✓		✓	Newtonian
ETHANOL	✓	✓		✓	Newtonian
ETHYLENE GLYCOL	✓	✓	✓	✓	Newtonian
FABRIC CONDITIONER			✓	✓	Pseudoplastic
FATS			✓	✓	Newtonian
FATTY ACID			✓	✓	Newtonian
FERRIC CHLORIDE	✓	✓	✓	✓	Newtonian
FERTILISER	✓	✓	✓	✓	Pseudoplastic
FILTER AID	✓	✓	✓	✓	Pseudoplastic
FININGS		✓	✓	✓	Pseudoplastic
FIRE FIGHTING FOAM			✓	✓	Pseudoplastic
FISH OIL			✓	✓	Newtonian
FONDANT		✓	✓	✓	Pseudoplastic
FORMIC ACID		✓		✓	Newtonian
FROMAGE FRAIS		✓	✓	✓	Pseudoplastic
FRUCTOSE		✓	✓	✓	Newtonian
FRUIT JUICE CONCENTRATE		✓	✓	✓	Pseudoplastic
FRUIT PUREE		✓	✓	✓	Pseudoplastic

Technical Data

Name of Fluid Pumped	Elastomer Material				Viscous Behaviour Type
	NBR	EPDM	FPM	PTFE	
FUDGE		✓	✓	✓	Pseudoplastic
GELATINE		✓	✓	✓	Pseudoplastic
GLUCOSE		✓	✓	✓	Newtonian
GLYCERINE	✓	✓	✓	✓	Newtonian
GREASE	✓		✓	✓	Pseudoplastic
GYPSPUM SLURRY	✓	✓	✓	✓	Pseudoplastic
HAIR CONDITIONER			✓	✓	Pseudoplastic
HAIR GEL			✓	✓	Pseudoplastic
HAND CLEANSER			✓	✓	Pseudoplastic
HONEY		✓	✓	✓	Pseudoplastic
HYDROCHLORIC ACID			✓	✓	Newtonian
HYDROGEN PEROXIDE			✓	✓	Newtonian
ICE CREAM MIX		✓	✓	✓	Pseudoplastic
INK - PRINTING			✓	✓	Pseudoplastic
INK - WATER BASED		✓	✓	✓	Newtonian
ISOBUTYL ALCOHOL		✓	✓	✓	Newtonian
ISOCYANATE				✓	Newtonian
ISOPROPANOL		✓	✓	✓	Newtonian
JAM		✓	✓	✓	Pseudoplastic
KEROSENE	✓		✓	✓	Newtonian
LACTIC ACID			✓	✓	Newtonian
LACTOSE		✓	✓	✓	Newtonian
LANOLIN			✓	✓	Newtonian
LATEX		✓		✓	Pseudoplastic
LECITHIN			✓	✓	Newtonian
LIPSTICK			✓	✓	Pseudoplastic
LIQUORICE			✓	✓	Pseudoplastic
MAGMA		✓	✓	✓	Pseudoplastic
MAIZE STARCH SLURRY	✓	✓	✓	✓	Pseudoplastic
MALT EXTRACT		✓	✓	✓	Pseudoplastic
MANGANESE NITRATE			✓	✓	Newtonian
MASCARA			✓	✓	Pseudoplastic
MASHED POTATO		✓	✓	✓	Pseudoplastic
MASSECUITE		✓	✓	✓	Pseudoplastic
MAYONNAISE				✓	Pseudoplastic
MEAT PASTE		✓	✓	✓	Pseudoplastic
METHANOL	✓	✓		✓	Newtonian
METHYL ETHYL KETONE SOLVENT		✓		✓	Newtonian
METHYLATED SPIRIT	✓	✓		✓	Newtonian
METHYLENE CHLORIDE			✓	✓	Newtonian
MILK		✓	✓	✓	Newtonian
MINCEMEAT		✓	✓	✓	Pseudoplastic
MINERAL OIL	✓		✓	✓	Newtonian
MOLASSES		✓	✓	✓	Newtonian
MUSTARD		✓	✓	✓	Pseudoplastic
NEAT SOAP		✓		✓	Pseudoplastic
NITRIC ACID			✓	✓	Newtonian
PAINTS - SOLVENT BASED				✓	Pseudoplastic

Name of Fluid Pumped	Elastomer Material				Viscous Behaviour Type
	NBR	EPDM	FPM	PTFE	
PAINTS - WATER BASED	✓	✓	✓	✓	Pseudoplastic
PAPER COATING - CLAY		✓		✓	Pseudoplastic (†)
PAPER COATING - PIGMENT	✓	✓	✓	✓	Pseudoplastic (†)
PAPER COATING - STARCH	✓	✓	✓	✓	Pseudoplastic
PAPER PULP	✓	✓	✓	✓	Pseudoplastic
PEANUT BUTTER			✓	✓	Pseudoplastic
PERACETIC ACID				✓	Newtonian
PETFOOD		✓	✓	✓	Pseudoplastic
PETROLEUM	✓		✓	✓	Newtonian
PHOSPHORIC ACID		✓		✓	Newtonian
PHOTOGRAPHIC EMULSION		✓	✓	✓	Pseudoplastic
PLASTISOL		✓		✓	Newtonian
POLYETHYLENE GLYCOL		✓	✓	✓	Newtonian
POLYVINYL ALCOHOL		✓	✓	✓	Pseudoplastic
POTASSIUM HYDROXIDE		✓		✓	Newtonian
PROPIONIC ACID				✓	Newtonian
PROPYLENE GLYCOL	✓	✓	✓	✓	Newtonian
QUARG		✓	✓	✓	Pseudoplastic
RESIN			✓	✓	Newtonian
RUBBER SOLUTION				✓	Pseudoplastic
SAUCE - CONFECTIONERY			✓	✓	Pseudoplastic
SAUCE - VEGETABLE		✓	✓	✓	Pseudoplastic
SAUSAGE MEAT		✓	✓	✓	Pseudoplastic
SEWAGE SLUDGE	✓	✓	✓	✓	Pseudoplastic
SHAMPOO			✓	✓	Pseudoplastic
SHAVING CREAM			✓	✓	Pseudoplastic
SILICONE OIL	✓	✓	✓	✓	Newtonian
SODIUM HYDROXIDE		✓		✓	Newtonian
SODIUM SILICATE		✓	✓	✓	Newtonian
SORBIC ACID				✓	Newtonian
SORBITOL	✓	✓	✓	✓	Newtonian
STARCH		✓	✓	✓	Pseudoplastic
SUGAR PULP - BEET		✓	✓	✓	Pseudoplastic
SUGAR PULP - CANE		✓	✓	✓	Pseudoplastic
SUGAR SYRUP		✓	✓	✓	Newtonian
SULPHURIC ACID			✓	✓	Newtonian
TALL OIL			✓	✓	Newtonian
TALLOW			✓	✓	Newtonian
TITANIUM DIOXIDE	✓	✓	✓	✓	Pseudoplastic (†)
TOBACCO FLAVOURING		✓			Newtonian
TOLUENE			✓	✓	Newtonian
TOMATO KETCHUP		✓	✓	✓	Pseudoplastic
TOMATO PUREE		✓	✓	✓	Pseudoplastic
TOOTHPASTE			✓	✓	Pseudoplastic
TRUB	✓	✓	✓	✓	Pseudoplastic
UREA		✓	✓	✓	Newtonian
VARNISH				✓	Newtonian
VASELINE	✓		✓	✓	Pseudoplastic

Technical Data

Name of Fluid Pumped	Elastomer Material				Viscous Behaviour Type
	NBR	EPDM	FPM	PTFE	
VEGETABLE GUM		✓	✓	✓	Pseudoplastic
VEGETABLE OIL			✓	✓	Newtonian
VITAMIN SOLUTION		✓	✓	✓	Newtonian
WATER	✓	✓	✓	✓	Newtonian
WAX			✓	✓	Newtonian
WHEY		✓	✓	✓	Newtonian
WHITE SPIRIT			✓	✓	Newtonian
WINE		✓	✓	✓	Newtonian
WORT		✓	✓	✓	Newtonian
XYLENE			✓	✓	Newtonian
YEAST		✓	✓	✓	Pseudoplastic
YOGHURT		✓	✓	✓	Pseudoplastic
ZEOLITE SLURRY	✓	✓	✓	✓	Pseudoplastic (†)
ZIRCONIA SLURRY	✓	✓	✓	✓	Pseudoplastic (†)

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