TABELA DE COMPATIBILIDADE DE FLUIDOS

FLUID COMPATIBILITY CHART

MFX do Brasil
Soluções em Umbilicais
Global Umbilical Solutions

Especificações Técnicas / *Technical Specification*

Indicação dos materiais das mangueiras, tubo interno (Poliamida 11 ou PVDF) e capa (Poliuretano ou Poliamida), e dos terminais (Aço inox).

Indication of the materials for the hoses, internal pipe (Polyamid 11 or PVDF) and cover (Polyurethane or Polyamid), and end fittings (Stainless Steel).

Obs.: Esta tabela deve ser usada como guia geral, considerando a temperatura do fluido até 60°C. Para detalhes adicionais consulte a MFX do Brasil.

Note: This table shall be used as a general guide, considering the fluid up to 60°C. For additional details refer to MFX do Brasil.

G = Bom / *Good*
C = Condicionável / *Conditional*
U = Ruim / *Unsatisfactory*

Obs.: Casos onde a capa aparece com C ou U, porém o tubo recebe G, pode ser possível o uso após análise do contato real entre o fluido e a capa.

Note: Cases where the cover is C or U, but the pipe is G, the use may be possible after the analysis of the actual contact of the fluid with the cover.

	CARCASS - SS	POLYAMID 11	PVDF	POLYURETHANE	STAINLESS
Chemical Agent to be Carried	Hose				Fittings
Acetate Solvents, crude	G	U	C	C	G
Acetate Solvents, pure	G	U	C	C	G
Acetic Acid, dilute (10%)	G	U	G	C	G
Acetic Acid, glacial	G	U	C	C	G
Acetic Acid, vapors	U	U	G	C	U
Acetone	G	G	C	C	G
Acetylene	G	G	C	G	G
Air	G	G	G	G	G
Air (hot) (to 200°F)	G	G	G	G	G
Alcohols	G	G	G	G	G
Aluminum Chloride	U	U	G	G	U
Aluminum Sulfate	G	U	G	G	G
Ammonia Gas, cold	G	U	U	C	G
Ammonia Liquid (Anhydrous)	G	U	C	U	G
Ammonium Chloride	U	U	G	G	U
Ammonium Hydroxide	G	C	C	U	G
Ammonium Nitrate	G	G	G	G	G
Ammonium Phosphate	G	U	G	G	G
Ammonium Sulfate	C	G	G	G	C
Amyl Acetate	G	U	C	C	G
Amyl Alcohol	G	C	G	C	G
Aniline, Aniline Oil	G	U	C	U	G
Aniline Dyes	G	U	C	U	G
Asphalt up to 180°F	G	G	G	G	G
Barium Chloride	C	U	G	G	C
Barium Hydroxide	G	G	G	G	G
Barium Sulfide	G	U	G	G	G
Beet Sugar Liquors	G	G	G	G	G
Benzene, Benzol	G	G	G	C	G
Borax	G	G	G	G	G

	CARCASS - SS	POLYAMID 11	PVDF	POLYURETHANE	STAINLESS
Chemical Agent to be Carried	Hose				Fittings
Boric Acid	G	U	G	G	G
Brine	C	G	G	G	C
Bromine	U	U	G	U	U
Butyl Acetate	G	G	U	C	G
Butyl Alcohol, Butanol	G	G	G	G	G
Calcium Bisulfite	U	U	G	G	U
Calcium Chloride	G	U	G	G	G
Calcium Hypoclorite	U	U	G	G	U
Cane Sugar Liquors	G	G	G	G	G
Carbolic Acid Phenol	G	U	G	U	G
Carbon Dioxide	G	G	G	G	G
Carbon Monoxide (hot)	G	C	G	G	G
Carbon Tetrachloride	C	G	G	U	C
Castor Oil	G	G	G	C	G
Cellosolve Acetate	G	U	C	U	G
China Wood Oil (Tung)	G	G	G	C	G
Chlorinated Solvents	G	U	G	U	G
Chlorine (Dry)	G	U	G	U	G
Chlorine (Wet)	C	U	G	U	C
Chloroacetic Acid	U	U	C	U	U
Chloroform	U	U	G	U	U
Chlorosulphonic Acid	U	U	C	U	U
Chromic Acid 30%	U	U	G	U	U
Citric Acid 10%	G	U	G	G	G
Copper Chloride	G	U	G	G	G
Copper Sulfate	G	U	G	G	G
Cottonseed Oil	G	G	G	G	G
Creosote	G	U	G	U	G
Diesel Oil, Light	G	G	G	G	G
Ethers	G	G	C	G	G
Ethyl Acetate	G	G	U	C	G

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	CARCASS - SS	POLYAMID 11	PVDF	POLYURETHANE	STAINLESS
Ethyl Alcohol	G	G	G	C	G
Ethyl Cellulose	G	C	C	G	G
Ethyl Chloride	C	G	G	C	C
Ethylene Dichloride	U	G	G	U	U
Ethylene Glicol	G	G	G	G	G
Ferric Chloride	U	U	G	G	U
Ferric Sulfate	G	U	G	G	G
Ferrous Salt Solution	U	U	G	G	U
Formaldehyde	G	G	C	G	G
Formic Acid	U	U	G	C	U
Freon 12	G	G	G	C	G
Freon 13	G	C	G	C	G
Freon 22	G	C	G	U	G
Fuel Oil	G	G	G	G	G
Furfural	G	G	C	G	G
Gasoline	G	G	G	G	G
Glue	G	C	G	G	G
Glycerine, Glycerol	G	G	G	G	G
Grease Petro	G	G	G	G	G
Heptane	G	G	G	G	G
Hexane	G	G	G	G	G
Hydrochloric Acid, cold 20%	U	U	G	G	U
Hydrochloric Acid, hot 20%	U	U	G	U	U
Hydrocyanic Acid	C	U	G	U	C
Hydrofluoric Acid, cold	U	U	G	U	U
Kerosene	G	G	G	G	G
Lacquer	G	G	C	C	G
Lacquer Solvents	G	C	C	C	G
Linseed Oil	G	G	G	G	G
LPG	G	G	G	G	G
Magnesium Chloride	C	G	G	G	C
Magnesium Hydroxide	G	G	G	C	G
Magnesium Sulfate	G	G	G	G	G
Mercuric Chloride	C	U	G	G	C
Mercury	G	G	G	G	G
Methyl Alcohol, Methanol	G	G	G	G	G
Methyl Chloride, cold	G	C	G	U	G
Methyl Ethyl Keytone	G	G	U	C	G
Mineral Oil	G	G	G	G	G
Naphtha	G	G	G	G	G
Naphthalene	G	G	G	C	G
Nickel Chloride	C	U	G	G	C
Nickel Sulfate	G	U	G	G	G
Nitric Acid, Crude	G	U	C	U	G

Chemical Agent to be Carried	Hose				Fittings
	CARCASS - SS	POLYAMID 11	PVDF	POLYURETHANE	STAINLESS
Nitric Acid 10%	G	U	G	C	G
Nitric Acid 70%	G	U	G	U	G
Nitrobenzene	G	G	C	U	G
Oleic Acid	C	U	G	G	C
Oleum Spirits	G	G	C	G	G
Paint (Oil Base)	G	G	G	G	G
Palmitic Acid	G	U	G	G	G
Perchlorethylene	G	U	G	U	G
Phosphoric Acid (Commercial)	G	U	G	U	G
Picric Acid, Malten	U	U	C	U	U
Picric Acid Solution	G	U	C	U	G
Potassium Cyanide	G	G	G	G	G
Potassium Hydroxide	G	U	C	C	G
Potassium Sulfate	G	G	G	G	G
Sewage	U	G	G	G	U
Soap Solution	G	G	G	G	G
Soda Ash, Sodium Carbonate	G	G	C	G	G
Sodium Bisulfate	C	U	G	G	C
Sodium Chloride	G	G	G	G	G
Sodium Cyanide	G	G	G	G	G
Sodium Hydroxide 50%	G	G	C	G	G
Sodium Hypochlorite	U	U	G	G	U
Sodium Nitrate	G	G	G	G	G
Sodium Perborate	G	U	G	G	G
Sodium Peroxide	G	U	G	G	G
Sodium Phosphates	G	U	G	G	G
Sodium Silicates	G	G	G	G	G
Sodium Sulfate	G	G	G	G	G
Sodium Sulfide	G	G	G	G	G
Sodium Thiosulfate "Hypo"	G	G	G	G	G
Soybean Oil	G	G	G	G	G
Stannic Chloride	U	U	G	G	U
Steam-up to 250ºF	G	U	G	U	G
Stearic Acid	C	G	G	G	C
Sulfur	G	G	G	G	G
Sulfur Chloride	G	G	G	C	G
Sulfur Dioxide	G	U	C	U	G
Sulfur Trioxide	C	U	U	U	C
Sulfuric Acid-cold (good to 50%)	U	U	G	G	U
Sulfuric Acid-hot (good to 50%)	U	U	G	G	U
Sulfuric Acid-75% cold	U	U	G	U	U
Sulfuric Acid-75% hot	U	U	G	U	U
Sulfuric Acid-95% cold	U	U	G	U	U

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Chemical Agent to be Carried	Hose				Fittings
Sulfuric Acid-95% hot	U	U	G	U	U
Sulfuric Acid-fuming	C	U	C	U	C
Sulfurous Acid	G	U	G	C	G
Tannic Acid	G	U	G	G	G
Tar	G	G	G	G	G
Tartaric Acid	G	U	G	G	G
Toluene	G	G	G	C	G
Trichlorethylene	G	C	G	U	G
Turpentine	G	G	G	G	G
Varnish	G	G	G	G	G
Water	G	G	G	C	G
Water (over = 150ºF)	G	C	G	C	G
Xylene	G	G	G	C	G
Zinc Chloride	U	U	G	G	U
Zinc Sulfate	G	U	G	G	G

	POLYAMID 11	PVDF	POLYURETHANE	STAINLESS
Hydraulic Oil to be Carried	Hose			Fittings
Petroleum Base Oil	G	G	G	G
Water/Petroleum Oil Emulsion	G	G	C	G
Water/Glycal Solution	G	G	C	G
Phosphate Ester	G	C	C	G
Phosphate Ester/Petroleum Oil	G	C	C	G
Ester Blend (MIL-L-7808)	G	C	G	G
Silicone Oil	G	G	G	G
Polyol ester	G	C	G	G
Chlorinated Hydrocarbon	-	G	C	U
Silicate Ester	-	C	G	G