

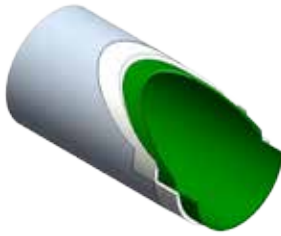




TYPE	P-Series	H-Series	A-Series Abrasion Resistant	AA-Series (Abrasion Resistant)	Custom
					
Typical Applications	Caustics, Acids, Brine Solutions, Industrial Chemicals, Sewer and Effluent Lines, Chlorine Dioxide, Pickling Lines, and other services demanding highly corrosion resistant resins.	Higher temperature capabilities than P-Series, H-Series has excellent resistance to solvents, chemicals and acidic oxidizing environments, solvent extraction, chlorination or caustic scrubbing or storage.	Enhanced erosion resistance. Excellent performance in handling Lime, Limestone, and Gypsum Slurries; as found in Wet Limestone Scrubber Systems. Suitable for other fine particle slurries (e.g. TiO2, Potash, Metal Slurry).	Internal & external erosion resistance. Wet Limestone FGD Spray Piping, and other applications where both internal and external erosion are a concern.	Chlorine and custom applications.
Service Environments	Hydrochloric Acid to 37%, Sulfuric to 70%, Sodium Hypochlorite to 15%, Brine, Raw Water, Seawater, Ferric Chloride, Sodium Hydroxide	Hydrochloric Acid to 37% , sulfuric to 70% , sodium hypochlorite to 15% , brine, raw water, seawater, ferric chloride, sodium hydroxide.	Absorber Recycle Slurry: 10-20% solids by weight; particle size = mean 40-70; = 97.5% < 150 microns; = 100% < 200 microns; velocity: 3.0-3.5m/sec. (10-12 ft./sec.) Limestone Slurry: 30-35% solids by weight; particle size = mean 40-70; = 97.5% < 150 microns; = 100% < 200 microns; velocity: 2.5-3.0 m/sec. (8-10 ft./sec.) Gypsum Slurry: 35-50% solids by weight; particle size = 100% < 200; velocity: 2.5-3.0 m/sec. (8-10 ft./sec)	Absorber Recycle Slurry: 10-20% solids by weight; particle size = mean 40-70; = 97.5% < 150 microns; = 100% < 200 microns; velocity: 3.0-3.5m/sec. (10-12 ft./sec.)	Hot Wet Chlorine Gas
Example Installations	Chemical Processing, Chlor-Alkali, Hydrometallurgical Processing, Pulp and Paper Manufacturing, Industrial Waste Treatment	Chemical Processing, Chlor-Alkali, Hydrometallurgical Processing, Pulp and Paper Manufacturing, Industrial Waste Treatment	Flue Gas Desulphurization, Potash Processing, TiO2 Processing, Metal Slurry handling	FGD Absorber Internal Spray Headers	Chemical Processing, Pulp and Paper Manufacturing, Hydrometallurgical Processing, Chlor-Alkali
Max.Temp.	180°F. (82°C.)	200°F. (93°C.)	180°F. (82°C.)	180°F. (82°C.)	

TYPE	Flouropolymers		Polyolefins		Vinyls	
	FEP/FRP (MAXAR)	PVDF/FRP	PP/FRP	HDPE/FRP	CPVC/FRP	PVC/FRP
Typical Applications	MAXAR's FEP liner is chemically inert to a broad range of commercial chemicals including: acids, chlorides, sulfates, bleach solutions and caustics, etc. Chemical Waste Processes. Low coefficient of friction. FEP is less susceptible to thermal shock.	Some common chemicals handled by PVDF piping are: acetic acid, chlorine, hydrochloric acid, sodium hypochlorite, sulfuric acid etc. It's often used for pump parts, tank liners, and seals. High Abrasion resistance with a Low coefficient of friction.	Polypropylene liners are chemically inert to mineral acids, alkalis, salt solutions and alcohols. Strong caustic streams including potassium hydroxide and sodium hydroxide solutions.	Can handle slurries, wastewater, chemicals, hazardous wastes and numerous solutions in the mining, gas and oil industry. High Abrasion resistance with a Low coefficient of friction.	Generally resistant to most acids, bases, oxidants and halogens.	Generally resistant to most acids, bases, oxidants and halogens.
Service Environments	Sulfuric Acid from 10% to 98%, Hydrochloric Acid to 37%, White Liquor, Brine, Bromine, Chlorate, Chlorinated Brine, Chlorinated Water, Chlorine, Chlorine Dioxide, Chlorine Gas, Copper Chloride, Cyanuric Chloride, Ethanol, Hydrogen Peroxide, Hydrocyanic Acid, Hydrogen, Hydrogen Bromide, Hydrogen Gas, Hypochlorous Acid, Magnesium Dichloride, Methanol, Methyl Bromide, Muriatic Acid, Nitrogen, Oleum (SO3), Oxygen, Phenylacetic Acid, Phosphoric Acid, Potassium Chloride, Potassium Hydroxide, Salt Cake Slurry, Silicone Tetrachloride, Sodium Bichromate, Sodium Bromide, Sodium Chlorate, Sodium Chloride, Sodium Hydroxide, Sodium Hypochlorite, Sodium Sesquisulfate, Sodium Sulfide, Sulfur, TiO2 Slurry, Waste Water, Water	Bromine, Water, Hot Wet Chlorine Gas	Brine, Chlorate, Chlorine Dioxide, Ethylene Dichloride, Hydrochloric Acid, Hydrogen Peroxide, Sodium Chlorate, Sodium Chloride, Sodium Hydroxide, Sodium Hypochlorite, Sulfuric Acid, Waste Water, Water	Lime, Methanol, Water	Brine, Chem Sewer, Chlorine, Chlorine Dioxide, Sodium Carbonate, Sodium Chloride, Sodium Hydroxide, Sodium Hypochlorite, Sulfuric Acid, Water	Chlorine, Chlorine Dioxide, Hydrochloric Acid, Hydrogen, Hydrogen Gas, Sodium Bichromate, Sodium, Chlorate, Sodium Chloride, Sodium Hydrosulfide, Sodium Hydroxide, Sodium Hypochlorite, Waste Line (Mixture)
Example Installations	Chemical Sewer, Chlor-Alkali Headers and Piping, Bromine Processing Piping, Sulfuric Acid Transfer Line, Electrowinning Piping, Hydrochloric Acid Process Piping	Chlor-Alkali Headers and Piping, Bromine Processing Piping, Hydrochloric Acid Process Piping	Chlor-Alkali Piping, Hydrochloric Acid Process Piping, Sulfuric Acid Transfer Lines, Pulp and Paper Manufacturing	TiO2 Processing	Chlor-Alkali Piping, Pulp and Paper Manufacturing, Electrowinning Piping	Chlor-Alkali Piping, Pulp and Paper Manufacturing
Max. Temp.	250°F (121°C)	250°F (121°C)	212°F (100°C)	180°F (83°C)	190°F (88°C)	170°F (77°C)

- Notes:**
- The information in this chart is provided as general reference. The details of a user's specific process may have a profound effect on material selection.
 - MAXAR and PVDF/FRP piping systems with a maximum continuous operating temperature above 180°F need to be evaluated by RPS engineering to determine if the process conditions are acceptable.
 - Materials such as FEP, have a much greater "workability/flexibility" than many of their more rigid dual laminate counterparts. This "workability" may be the determining factor in the life of the product.