

*Chem***LINE**[®]

*The industry leading coating for aggressive applications,
providing superior chemical resistance.*



ADVANCED
POLYMER COATINGS



ChemLINE® Presents a History of Performance

ChemLINE® coatings from Advanced Polymer Coatings provide high performance corrosion protection. They are engineered using unique polymer technology to deliver excellent resistance to a wide range of aggressive chemicals.

ChemLINE® coatings offer outstanding features and benefits, which can include:

- ▶ Resistance to aggressive chemical exposures, including strong acids, alkalis, gases, solvents and oxidizers
- ▶ Superior bond strength and adhesion to metal substrates, composites and concrete
- ▶ Virtually non permeable film minimizing cargo absorption and assuring content purity
- ▶ Wear and abrasion resistance
- ▶ Outstanding flexibility
- ▶ Field repairable
- ▶ Complies with all FDA regulations (GRAS)
- ▶ High temperature resistance up to 400°F (204°C)
- ▶ Thermal cycling resistance -40° to +400°F (-40° to 204°C)
- ▶ Resists hydroblasting
- ▶ Excellent conductive / static dissipating properties
- ▶ Low surface tension

For product recommendations and technical, application and heat curing information contact Advanced Polymer Coatings' customer service. Contact +1 440-937-6218.



Superior Corrosion Resistance Performance

	ChemLINE®	Phenolic Epoxy	Vinylester	Stainless Steel
Acetaldehyde	A	L	N	A
Acetic Acid	A	N	N	A
Acrolein Acid	A	N	—	A
Acrylic Acid	A	N	N	A
Acrylonitrile, (35°C)	A	N	N	A
Ammonium Persulfate	A	A	A	L
Azabenzene	A	N	N	A
Benzene	A	A	N	A
Benzene Carboxylic Acid	A	A	N	A
Benzoyl Chloride	A	N	N	N
B-Methacrylic Acid	A	N	N	A
Bichromate of Soda	A	N	A	A
Bromine	A	N	N	A
Butanoic Acid	A	N	—	A
Butyric Aldehyde	A	N	A	A
Calcium Hydroxide	A	A	A	A
Calcium Hypochlorite	A	A	A	L
Caustic Potash	A	N	N	A
Carbolic Acid	A	N	N	A
Chlorine Water	A	N	A	N
Chlorosulfonic Acid	A	N	N	N
Chlorinated Acetone	A	N	N	L
Chloroacetic Acid	A	N	N	L
Chromic Acid, 20%	A	N	A	N
Coal Tar Oil	A	N	A	A
Coconut Fatty Acid	A	A	A	A
Colamine	A	N	N	A
Cresol	A	N	—	A
Dichloromethane	A	N	N	A
Detergents	A	A	A	A
Diethyl Formamide	A	N	N	A
Diethylamine	A	N	N	A
Diethylene Chloride	A	N	N	L
Diethyl Ether	A	N	N	A
Dimethylamide Acetate	A	N	—	A
Disulphuric Acid	A	N	—	A
EDTA	A	N	A	A
Ethanolamine	A	N	N	A
Ethonic Acid Anhydride	A	N	—	A
Ethyl Acrylate	A	A	N	A
Fatty Acids	A	A	A	A
Fatty Acid, Palm	A	A	A	A
Ferric Chloride	A	N	A	N

	ChemLINE®	Phenolic Epoxy	Vinylester	Stainless Steel
Flaked Stearic Acid	A	N	A	A
Fluoraboric Acid*	A	N	—	N
Formaldehyde	A	A	A	A
Formamide	A	N	—	A
Formic Acid 10%	A	N	A	A
Green Liquor	A	N	A	L
Glycerol	A	N	N	A
Grape Juice	A	A	A	A
Grapefruit Juice	A	A	A	A
Grease Oil	A	A	A	A
Heptanoic Acid	A	A	—	A
Herring Oil	A	A	A	A
Hexahydroaniline	A	N	—	A
HMDA	A	N	—	A
Hydrazine	A	N	N	A
Hydrobromic Acid	A	N	A	N
Hydrochloric Acid	A	N	A	N
10% Hydrofluoric Acid*	A	N	A	N
5-20% Hydrogen Chloride	A	N	—	N
10%-30% Hydrogen Sulfate	A	N	A	A
Isobutanol	A	N	A	A
Isobutyric Acid	A	N	—	A
Isopropyl Amine	A	N	A	A
Javelle Water	A	N	A	N
Juices, Fruit	A	A	A	A
Lactic Acid	A	A	A	A
Lactonitrile	A	N	—	A
Latex	A	A	A	A
Liquified Ammonia	A	N	N	A
Liquid Pitch Oil	A	N	A	A
M-Phosphoric Acid**	A	N	A	L
Maleic Anhydride	A	N	A	A
MCA	A	N	—	A
Methacrylonitrile, (35°C)	A	N	N	A
Methanamide	A	N	—	A
Methanol	A	N	N	A
MEK	A	L	N	A
Methylene Chloride	A	N	N	N
Monochloro Benzene	A	N	N	N
Naphtalene	A	N	A	A
Nitric Acid 1-20%	A	N	A	A
Nitro Benzene	A	A	N	A
Nitrogen Fertilizers	A	A	—	A

	ChemLINE®	Phenolic Epoxy	Vinylester	Stainless Steel
Norval Amine	A	N	N	A
Octanoic Acid	A	A	—	A
Orthonitro Benzene	A	N	N	N
Oleum	A	N	N	A
Olive Oil Fatty Acid	A	A	A	A
Palm Oil Fatty Acid	A	A	A	A
Perchloroethylene	A	N	N	A
Perchloric Acid	A	N	N	N
Phenol	A	N	N	A
Phosphoric Acid	A	N	A	N
Phthalic Anhydride	A	N	A	A
Piperzine	A	N	—	A
Polyethylene Polyamines	A	N	—	A
Potassium Hydroxide	A	A	L	L
Potassium Permanganate	A	A	A	L
Propionic Acid	A	N	N	A
Pyridine	A	N	N	A
Rubber Extender Oils	A	A	A	A
Rum	A	A	A	A
Sodium Carbonate	A	N	A	N
Sodium Dichromate	A	N	A	A
Sodium Hydroxide	A	A	A	L
Sodium Sulfide	A	A	N	N
Stannic Chloride	A	A	A	N
Stearic Acid	A	A	A	A
Spent Sulfuric Acid	A	N	N	A
Sulfur	A	N	N	A
Sulfuric Acid 1-70%	A	A	A	N
Sulfuric Acid 70-99%	A	N	N	L
Sulphurous Acid	A	N	N	A
Tall Oil	A	A	A	A
Tallow Acid	A	A	N	A
Tar Acid	A	N	A	A
Tetra Chloroacetic Acid	A	N	N	N
Tetra Hydrofurfuryl Alcohol	A	N	N	A
Toluene Diamine	A	N	N	A
Toluol	A	L	L	A
Valeraldehyde	A	N	—	A
Vinegar	A	N	A	A
Vitriol Oil 65%	A	N	A	A
Water, Acid	A	N	N	A
Xylenol	A	N	N	A

A = Good at ambient temperatures (35°C/95°F) L = Limited Service N = Not recommended
 * ChemLINE® 2400 Series ** ChemLINE® 784 Series

Corrosion resistance data for Phenolic Epoxy, Vinylester and Stainless Steel from published literature.

This is Only A Reference Guide. Contact your ChemLINE® Representative or the ChemLINE® Customer Service Hotline +1 440-937-6218 for detailed specifications prior to any final coatings recommendation or application.

▶ ChemLINE® Provides Enhanced Corrosion Protection

Petro/Chemical



PETROLEUM & REFINING



CHEMICAL PROCESSING

- Processing Tanks
- Pipes
- Digesters
- Reaction Vessels
- Bulk Storage
- Tanks

Transportation



TRUCK



RAIL

- ChemLINE® coatings provide an advanced tank lining protection for transportation equipment. ChemLINE®'s unique cross linked polymer structure creates a virtually non-permeable surface, thus providing corrosion resistance while ensuring product purity.



BARGES



ISO TANK CONTAINERS (Class 8 Corrosion Cargoes)

Industrial



TANK STORAGE & TERMINALS



POWER GENERATION

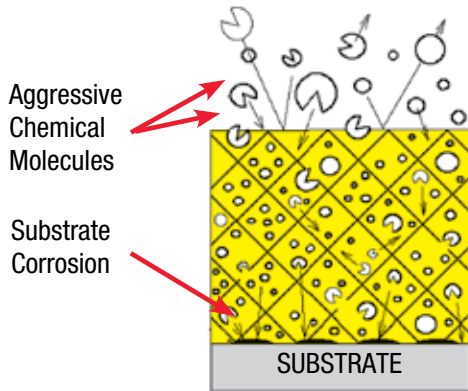
- Stacks
- Scrubbers
- Duct Work
- Waste Treatment
- Pipes
- Secondary Containment

▶ Patented Polymer Technology Delivers Results

Compare the Superior Performance Capability of ChemLINE®

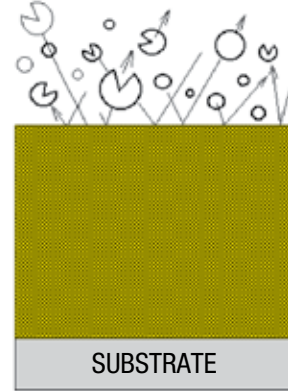
- Higher chemical resistance • Higher temperature resistance • Resistance to permeation (absorption)

Problems with Phenolic Epoxy and Modified Epoxy Open Screen Structures



Aggressive chemical molecules penetrate into and through the polymer groups attacking both the inner polymer structure and the substrate.

ChemLINE® 784 Closed Screen Structure



Aggressive chemical molecules cannot penetrate the high density surface. Inner polymer structure and substrate protected from chemical attack.

ChemLINE® Quick Reference Chart

Coating	Excellent Chemical Resistance	Elevated Service Conditions	Handles Multiple Cargoes	FDA Compliant (GRAS) (1)	High Solids - 1 or 2 Coats	Ambient Cure	Abrasion Resistant	Anti-Static	Plural Component	Faster Throughput	Field Repairable
ChemLINE® 784	✓		✓	✓		✓					✓
ChemLINE® 784 ES Elevated Service	✓	✓	✓								✓
ChemLINE® HS High Solids	✓		✓	✓	✓	✓			✓	✓	✓
ChemLINE® 784 AS Anti-Static	✓		✓			✓	✓				✓
ChemLINE® 784 WS Wine & Spirits	✓		✓	✓		✓					✓
ChemLINE® 2400 Abrasion Resistant	✓		✓			✓	✓				✓
ChemLINE® 2400 ES Elevated Service	✓	✓	✓				✓				✓

(1) These ChemLINE® coatings are generally recognized as safe (GRAS) for food grade cargoes. ChemLINE® coatings comply with the FDA and all applicable food additive regulations.

This data is only to be used as a general guide for product properties. A formal recommendation should be obtained from APC prior to any purchase or specification of material.



Coating	Description	Typical Applications	System/DFT
ChemLINE® 784 <i>previously: ChemLINE® 784/32</i>	Excellent chemical resistance, high functionality, two component low temperature cure polymer coating.	Reactors, chemical storage tanks, scrubbers, piping, ducts, rail cars, ISO tanks, OTR tankers, barge tanks, secondary containment, clean rooms, structural steel, manhole covers, vaults, & floors.	Steel: 2 coats. 300-350 microns. (12-14 mils). Concrete: 2 coats. 500-600 microns. (20-24 mils).
ChemLINE® 784 ES Elevated Service <i>previously: ChemLINE® 784/31</i>	Highly chemically resistant, high functionality, two component high temperature cure polymer coating, with high cure.	Tanks, pipes, & scrubbers.	Steel: 2 coats. 300-350 microns. (12-14 mils).
ChemLINE® HS High Solids <i>previously: ChemLINE® 784/32 PC</i>	High solids, 1 or 2 coats, chemically resistant two component low temperature cure polymer coating.	Transportation - rail cars, OTR tankers, ISO tanks, barge tanks, & tanker ships.	Steel: 1 or 2 coats to achieve 300-350 microns. (12-14 mils).
ChemLINE® 784 AS Anti-Static	Static dissipating, chemically resistant, high functionality, two component low temperature cure polymer coating.	Clean rooms, flooring, ducts, structural steel, hopper cars, and where a static dissipating lining is required.	Steel: 2 coats. 300-350 microns. (12-14 mils). Concrete: 2 coats. 500-600 microns. (20-24 mils).
ChemLINE® 784 WS Wine & Spirits <i>previously: ChemLINE® EF</i>	FDA (GRAS) two component low temperature cure polymer coating for wine and spirits tanks.	Wine & spirits tanks.	Steel: 2 coats. 300-350 microns. (12-14 mils).
ChemLINE® 2400 Abrasion Resistant <i>previously: ChemLINE® 2400/32</i>	Abrasion and chemically resistant two component low temperature cure polymer coating.	Slurry tanks, scrubbers, dump trucks, bag houses, FGD units, tank containers, hopper cars, ion exchange vessels, secondary containment, and floors.	Steel: 2 coats. 400-450 microns. (16-18 mils). Concrete: 2 coats. 600-650 microns. (24-26 mils).
ChemLINE® 2400 ES Elevated Service <i>previously: ChemLINE® 2400/31</i>	Abrasion and highly chemically resistant two component high temperature cure polymer coating.	Tanks, pipes, & scrubbers.	Steel: 2 coats. 400-450 microns. (16-18 mils).

Other APC products offered that complement ChemLINE® coatings include: **ChemLINE® Primer** for superior bonding and sealing properties; **ChemLINE® Thick Set Patch** and **ChemLINE® Thin Set Filler** offer excellent chemical resistance and flexibility.



Advanced Polymer Coatings

Avon, Ohio 44011 U.S.A.
 +1 440-937-6218 Phone
 +1 440-937-5046 Fax
 800-334-7193 Toll-Free USA & Canada



The information provided by Advanced Polymer Coatings, Inc. (APC) for the application or repair of APC coatings is based upon protective coating industry standards and knowledge gained through observation of professional applicators throughout the world that have successfully applied APC coatings. APC does not exercise any control over selection of the applicator that applies or repairs APC coatings. By providing information APC is not representing, directly or by implication, that an applicator that is provided with this information will achieve a result that will pass without objection in the trade or industry, otherwise referred to as MERCHANTABILITY, or will meet the vessel owner's protective coating requirements, otherwise referred to as FITNESS FOR A PARTICULAR PURPOSE. The only warranty provided by APC through its information and literature is that all APC products when delivered will have been manufactured in accordance with APC's manufacturing procedures, will be accurately labeled, and when mixed, applied and cured in a controlled environment in accordance with APC's current written application guidelines will withstand chemical corrosion as set forth in APC's chemical compatibility reference guide. The chemical compatibility reference guide and current application guidelines are available at www.adv-polymer.com. Any customer specific

express warranty can only arise from a written warranty extended by APC to the specific customer identified in the writing. APC DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE THAT ARE CONTAINED IN ARTICLE 2 OF THE UNITED STATES UNIFORM COMMERCIAL CODE AND ANY SIMILAR WARRANTIES CONTAINED IN THE LAWS OF OTHER COUNTRIES WHERE APC PRODUCTS ARE DELIVERED OR APPLIED. ALL CONTRACTS FOR THE SALE OF APC PRODUCTS SHALL BE GOVERNED BY THE UNIFORM COMMERCIAL CODE WITHOUT REGARD TO ANY STATE VARIATIONS.

© Copyright 2020-05-05 APC2021



TOMORROW'S SOLUTIONS TODAY