

ChemLINE[®] 784/31

A coating with superior chemical resistance and high temperature resistance.



Description

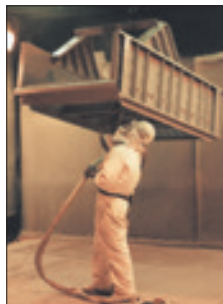
ChemLine[®] 784/31 delivers significantly improved product performance and anti-corrosion resistance. ChemLine[®] 784/31 is formulated with unique polymer technology, designed and engineered with high functionality. This translates in up to 784 cross-links versus four (4) for high temperature epoxies.

ChemLine[®] 784/31's Higher Cross-Link Density Means:

- ▶ Higher chemical resistance
- ▶ Higher temperature resistance
- ▶ Higher reactivity at lower temperature
- ▶ Higher resistance to absorption
- ▶ Higher toughness

Industry Applications

- ▶ **Chemical Processing** - Tanks, flare tanks, reactor vessels, hazardous waste hauling, etc.
- ▶ **Paper & Pulp** - Digesters, black liquor tanks, bleaching, etc.
- ▶ **Steel** - Pickling tanks, acid storage, acid waste, neutralization, etc.
- ▶ **Mining** - Acid tanks, scrubbers, etc.



More Chemical Resistance Than:

- ▶ Stainless steel
- ▶ Phenol epoxies
- ▶ Vinylesters
- ▶ Phenolic

Product Highlights

- ▶ Superior bond strength and adhesion
- ▶ Maximum product flexibility, product cycling
- ▶ Field repairable
- ▶ Low VOC - 99 grams/L (0.80 lbs.per gallon)
- ▶ Can be applied to pitted and/or corroded steel
- ▶ Steam cleanable
- ▶ Complies with all FDA regulations
- ▶ Virtually non-permeable for product purity

ChemLine[®] 784/31 Provides Superior Resistance To:

- ▶ Acids, alkalis and solvents
- ▶ Thermal cycling -40°F to 400°F (-40°C to +204°C)
- ▶ Good flexibility
- ▶ Wear and abrasion resistant
- ▶ Minimal product absorption
- ▶ Impact resistant
- ▶ Resists under-creep corrosion
- ▶ Dry heat resistance to 500°F (260°C)

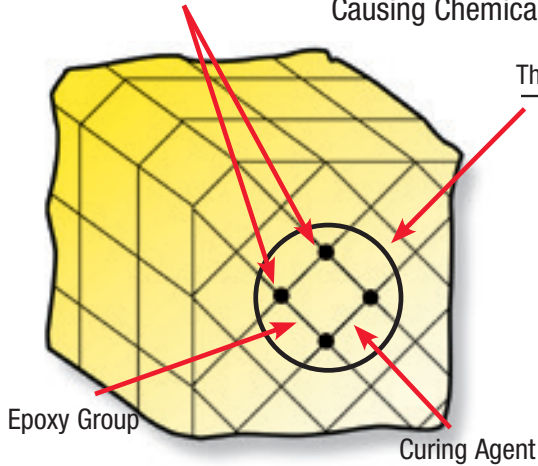
Typical Properties

- ▶ Stock Colors _____ Gray, Red
- ▶ V.O.C. Level/Gal. _____ 99 grams/L (0.80 lbs./gal.)
- ▶ Lead Content _____ Zero
- ▶ Chromate Content _____ Zero
- ▶ Pot Life _____ 120 minutes @ 75°F (24°C)
- ▶ Viscosity Reduction _____ Reduce with Toluene or Xylene
- ▶ Solids by Volume _____ 89.6%
- ▶ Recommended Film Thickness (dry) mils average _____ Steel: 12 mils (300 microns)
- ▶ Shelf Life _____ 12 months

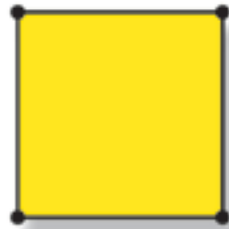
For product recommendations and technical, application and heat curing information contact Advanced Polymer Coatings' customer service. Contact +01 440-937-6218.

▶ The Technology; Epoxies, Vinylesters and ChemLine® 784/31 Form 3 Dimensional Screen-Like Structures when Cured

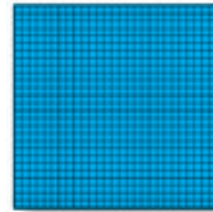
The Greater the Distance Between the Crosslinks, the Greater the Permeation Causing Chemical Attack and Absorption



The Following Diagrams Represent the Same Coating Cutaway (pictured left)



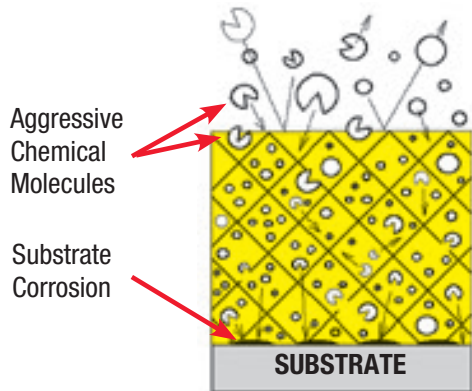
Epoxy
2 Functionality
Forms 4 Cross-links



ChemLine® 784
High Functionality
Forms up to 784 Cross-links,
the Highest Cross-link Density

Problems with Epoxies and Vinylesters

Vinylester's and Epoxy's Open Screen Structure



AGGRESSIVE CHEMICAL MOLECULES PENETRATE INTO AND THROUGH THE POLYMER GROUPS ATTACKING BOTH THE INNER POLYMER STRUCTURE AND THE SUBSTRATE.

ChemLine 784's Closed Screen Structure



AGGRESSIVE CHEMICAL MOLECULES CANNOT PENETRATE THE HIGH DENSITY SURFACE. INNER POLYMER STRUCTURE AND SUBSTRATE PROTECTED FROM CHEMICAL ATTACK.

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Advanced Polymer Coatings
Avon, Ohio 44011 U.S.A.
+01 440-937-6218 Phone
+01 440-937-5046 Fax
800-334-7193 Toll-Free in USA & Canada

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www.adv-polymer.com