

# ADVANCED PROTECTIVE COATING SYSTEM

## VSC™ 1200 CUI TOPCOAT SYSTEM

with  
Eastman TETRASHIELD™  
protective resin systems

### VSC™ 1200 CUI TOPCOAT SYSTEM (Parts A & B)

VSC 1200 CUI Topcoat System is a two part (4:1) solvent based topcoat that is a hard, tough and extremely durable heavy duty industrial maintenance coating, designed to be applied to warm surfaces while they are in service. It is used in conjunction with VSC™ 1100 Epoxy Primer, over marginally prepared hot surfaces operating between 80 and 100° C. The key is in the resin and Eastman Tetrashield™ protective resin systems create coatings that protect. Eastman has a long history of developing innovative polymers to solve the toughest problems and this latest innovation of Tetrashield continues this legacy. Valentus Specialty Chemicals and Eastman have invested thousands of research hours over the past four years to bring this remarkable technology to market.



### PHYSICAL PROPERTIES (Mixed)

STANDARD COLORS	Gray
APPLICATION SURFACE TEMPERATURE	80-100° C
FINISH	High Gloss
TACK FREE TIME	4-5 ½ hours
%SOLIDS BY WEIGHT	75
%SOLIDS BY VOLUME	65
COVERAGE (Theoretical)	295 sq. ft./gal @3.5 mils DFT, assumes no Loss
RECOMMENDED THICKNESS	3-4 mils dry (4-6 mils wet)
VISCOSITY	73 Ku
WORKABLE POT LIFE	4 hours at 77° F
SAG RESISTANCE	10+ mils
RECOAT TIME	1-5 hours
COATING VOC	2.72# per gl. (326 gms./l.)
FLASHPOINT	80°F
FLAMMABILITY CLASS	Flammable IC

### Advantages:

- Apply system to marginally prepared surfaces where abrasive blasting is not possible
- Apply to in service hot surfaces up to 80-100° C
- Superior adhesion, water vapor permeation & chemical resistance

### PRODUCT DESCRIPTION:

Premium performance high solids, low VOC two component gloss urethane topcoat specifically formulated for select CUI applications.

### RECOMMENDED USES:

API RP583 and NACE SPO198-2016 provide for the use of conventional epoxy maintenance coatings to provide protection against corrosion under insulation at operating temperatures up to 60°C. Valentus VSC 1100 Epoxy Primer may be used by itself for CUI resistance at temperatures up to 60°C. VSC 1100 may be applied directly to marginally prepared in service surfaces operating at temperatures up to 100°C when top coated with VSC 1200 CUI. VSC 1200 CUI Urethane Topcoat has been specially formulated for application to in service hot surfaces operating at temperatures between 80 and 100°C. VSC 1200 CUI may be used with VSC 1100 for CUI protection at temperatures between 60 and 100°C because of its superior resistance to water vapor permeation and chemical exposure. The ability to provide CUI protection to marginally prepared surfaces that can remain in service is a significant advantage for the VSC 1100/1200 CUI combination. For maximum protection it is recommended that the coated equipment be insulated with a CUI resistant insulation system.

Recommended for use on in service hot surfaces such as distillation columns, piping, storage tanks, pumps, motors and other equipment that cannot be shut down for painting.

### PERFORMANCE DATA

Corrosion ASTM B117 Salt Fog Blasted steel

Film Build VSC1100	ASTM B117 rating	With VSC1200topcoat (5 mil dry)
3.5-5 mil dry	Greater than 1400 hrs. no face blister, no face rust, less than 2mm scribe rust	Greater than 3000 hr. no face blister, no face rust, less than 3 mm scribe rust

Chemical resistance VSC 1100/1200 at target film build, 7 day ambient cure, 7 day direct contact exposure

Material	Rating
Acid (sulfuric)	Excellent – no damage
Base (sodium hydroxide)	Excellent – no damage
Solvents	Good
Brake Fluid	Good (some softening)
Hydraulic Fluid	Excellent
Water*	Excellent
Salt water*	Excellent

\*Not recommended for immersion

Weathering: VSC 1100/1200 at target film build, 7 day ambient cure 60 degree gloss retention

Method	Rating
Xenon ASTM 7869	4000 hrs. > 70% gloss retention
ASTM G154 cycle 1 (QUVA)	6000 hrs. > 70% gloss retention

Adhesion VSC 1100/1200 at target film build, 7 day ambient cure

Method	Rating
Condensing Humidity ASTM D2247 at 60°C 7days blasted steel	Excellent
Field exposed Blasted steel	Excellent
Field exposed moderately prepared surface (Power wash/scrub over old paint)	Excellent



## DIRECTIONS FOR USE

VSC™ 1200 CUI Topcoat must be applied over VSC™ 1100 Aluminum Epoxy high solids low VOC primer.

### SURFACE PREPARATION:

Surfaces must be clean, dry, free from oil, grease, hydraulic fluids, silicone contamination, waxes, or any other residue. Use a solvent or commercial cleaner that does not leave a residue per SSPC-SP 1. Remove all mill scale, rust and any loose paint.

Ensure that previously painted surfaces have adequate adhesion, or remove. Smooth, slick surfaces should also be abraded/scuffed to ensure adequate adhesion. Prime overall with VSC 1100 aluminum epoxy primer.

For environments which do not permit abrasive blasting, or over previously painted surfaces, hand tool cleaning per SSPC-SP2, power tool cleaning per SSPC-SP3, and/or high pressure water cleaning per SSPC-SP 12/NACE 5 WJ-4 is recommended.

### APPLICATION:

MIXING: 4 parts VSC 1200 Topcoat Part A

1 part VSC 1200 Topcoat Part B

- Material is supplied in two containers as a unit, always mix a complete unit in the proportions supplied. Once the unit has been mixed, it must be used within the working pot life specified.
- Mix Part A thoroughly with low speed power agitation
- Then combine components, blend 1 Part B into 4 Parts A and thoroughly agitate the mixture with low speed power agitation.
- There is no induction period required, material is ready to use
- Do not apply material beyond the recommended pot life
- Do not mix previously catalyzed material with fresh material
- DO NOT MIX PARTIAL KITS - ONLY USE ONE & FIVE GALLON KITS AS SUPPLIED

**METHOD OF APPLICATION:** Air, Airless or Air Assisted Airless Spray, Brush or Roller, directly over in service hot surfaces up to 80-100° C

Brush or Roller: No thinner is necessary throughout the workable pot life window. Use a natural bristle brush or medium nap roller with a solvent resistant fibers & core. Work coating into all gaps and crevices. Apply wet and avoid excessive brushing or re-rolling.

Airless or Air Assisted Airless: No thinner is necessary throughout the workable pot life window. An airless pump equivalent to Graco Bulldog 30:1 ratio at 1900-2100 psi is recommended, with a 60 mesh in line filter. Use .013" to .0315" spray tip. Good results have also been achieved with a Graco 60:1 Bulldog pump at 45 psi, using a 517-519 tip. A Graco air assisted 30:1 pump or equivalent 1900 - 2300 psi, and 65 psi atomizing pressure is recommended, using a 311 reversible tip. **Optimum results have been achieved using a .017" tip at 2600 psi with a 3/8" ID hose and no thinning.**

Conventional Air: A small amount of thinning may be required for good atomization. If necessary, use only VSC 8100 Thinner at 2-3% by volume maximum. Industrial sprayers such as DeVilbiss MBC or JGA and Binks 18 or 62, fitted with a double regulated pressure pot, 3/8" ID minimum material hose and a .070" - .086" ID fluid tip and matching air cap, are recommended.

**CLEANUP & PROLONGED WORK STOPPAGES:** Do not allow material to remain in hoses at the end of a job, or during prolonged work stoppages.

Thoroughly flush & clean all equipment immediately after use with Acetone or MEK. Any mixed topcoat should not be re-used after its workable pot life.

All excess material and empty containers should be disposed of in accordance with appropriate local, state and federal regulations.

**SHELF LIFE:** 2 years from date of manufacture unopened at 77°F

**CAUTION:** For industrial use only. Read and follow all caution statements on this product data sheet, and on the Material Safety Data sheet for VSC 1200 2K Urethane Topcoat

**HEALTH & SAFETY:** This is a Flammable IC material. Use explosion proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used.

In confined spaces (or when spraying) use a chemical respirator with organic vapor cartridge and full facepiece.

**WARRANTY:** Any recommendation by Valentus Specialty Chemicals contained herein, covering the use, utilization, chemical or physical properties and other qualities of our products sold is believed to be reliable, and meet the performance standards as published in our brochures and technical data sheets, when applied and tested under our prescribed conditions; however, Valentus Specialty Chemicals makes no warranty or representation with respect thereto. Use or application is at the discretion of the Buyer without liability or obligation whatsoever of Valentus Specialty Chemicals.

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