TECHNICAL DATA SHEET

CRU 246

SOLVENT CHEMICAL RESISTANT POLYURETHANE

PRODUCT DESCRIPTION:

CRU246 Chemical Resistant Polyurethane Coating is a high solids, high build chemical resistant two-component, gloss finish, aliphatic polyurethane coating. *CRU246* provides strong chemical resistance and non-yellowing for use on exterior and interior pre-primed concrete surfaces. Typical surfaces for use of this product are aircraft hangars, automotive repair shops, service stations, show rooms, factory floors, garage floors, and many other commercial high traffic surfaces. *CRU246* mixes at 2 Parts A to 1 Part B by volume.
CRU246 CRU is available in clear, white, 24 standard colors and also can be custom tinted. ***Bond strength of this coating over previously installed coatings must be tested.***

ADVANTAGES:

- *Excellent UV Resistance*
- *Gloss Finish*
- *Resists Yellowing*
- *Abrasion Resistant*
- *Excellent Durability*
- *24 Standard Colors*
- *Excellent Chemical Resistance*
- *V.O.C. Compliant* 420g/L*
- *Custom Tints Available*

*Check your local V.O.C. (Volatile Organic Content) Regulations before use.

USES:

- *Aircraft Hangars*
- *Auto Repair Shops*
- *Service Stations*
- *Show Rooms*
- *Factory Floors*
- *Commercial Floors*

PHYSICAL PROPERTIES:

Vehicle	*Polyurethane / Aliphatic Isocyanate*
Mixing Ratio	*2 -Parts A Resin to 1 Part B Curative*
Colors	*White, Clear and 24 Standard Colors (Custom tints available).*
Thinner / Reducer	*Xylene, MEK or 246s CRU Reducer*
Application	*Brush and Roll.* *Use Solvent Resistant Brush and/or 3/16" – 5/16" High Quality Solvent Resistant Mohair Rollercover*
Recommended Primers	*Max-Bond 155 Waterborne Epoxy Coating or HSE-250 Solvent Based Epoxy Coating*
Number of Coats	*1 coat over pre-primed or pre-coated surface.*
Solids – Clear Solids – Pigmented	*Weight 57.0% +/- 2* *Volume 53.6% +/- 2* *Weight 71.7% +/- 2* *Volume 62.3% +/- 2*
Volatile Organic Solvent	*Clear 415 grams/liter* *Pigmented 370 grams/liter*
Flash Point, T.T.C.	*105°F*
Theoretical Coverage	*Clear Pigmented* *1 mil (25 microns) 859 1000* *5 mils(125 microns) 172 200*
Gloss @ 60 °	*90-93 (Gloss)*
Impact Resistance (ASTM D-2794)	*160 inch pounds reverse and direct*
Hardness(Konig)	*105*

Abrasion Resistance Taber CS-17 wheel, 1000 cycles, 1000gm	*35 mg loss*
Flexibility	*Passes 1/8" conical mandrel*
Pot Life (Hours@77 deg F.)	*1 ½ - 2 ½ hours*
Cure Time (77° F& 50% Rel. Humidity.)	*To Touch: 4 – 6 hours* *To Re-coat: 10 – 12 hours* *Light Traffic: 30 - 48 hours* *Heavy Foot Traffic: 3 Days* *Full Cure: 7 Days* *Dry times will vary depending on conditions at the time of application.*
Recoat Time (77° F& 50% Rel. Humidity.)	*From 16 to 24 hours* *For application after 24 hours sand screen before recoat.*
Packaging	*.75 gallon kits: 1/2 gallon Part A* *1/4 gallon Part B* *1.5 gallon kits: 1 gallon Part A* *1/2 gallon Part B* *15 gallon kits: 2- 5 gallon pails Part A* *1- 5 gallon pail Part B*
Shelf Life	1 year when stored in unopened containers at an ambient temperature of 77° F. at 30% relative humidity. DO NOT ALLOW TO FREEZE.

DECORATIVE AND PROTECTIVE CONCRETE COATINGS
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COATING LIMITATIONS:
Vapors from this coating may be offensive to people not used to the odor. Do not apply in or around occupied buildings until building management and everyone occupying the structure is notified.

As with all performance coatings, the cured film may become slippery when wet or exposed to oily conditions. Non skid additives can be added to aid in slip resistance.

This product is resistant to tire pick up, but surfaces may discolor due to tire plasticizer migration.

Do not apply in damp or wet weather or in air temperatures below 50°F or over 90°F and or extremely high humidity conditions.

Do not apply over unsound surfaces.

For specific chemical resistant properties that are not listed in Technical Data Sheet test before application.

If the coating is applied where food items are stored, remove all food items until the coating has fully cured and vapors have dissipated.

This product is not intended to be sprayed.

SURFACE PREPARATION:
Surfaces should be clean and free from contamination by dirt, oils, waxes, chalking, bacteria, cleaning, curing, etching agents, neutralizing agents, and peeling coatings. Proper preparation techniques should be followed such as Acid Etching or Mechanical Abrading.

Concrete Dryness:
To ensure proper adhesion to the substrate a moisture vapor emission test is recommended using ASTM D4263.
This test is done by taping a sheet of 4 mil clear polyethylene plastic (18" x 18") to the concrete surface. The sheet should be left for at least 16 hours.

Mechanical Preparation:
Mechanically abrading can be scarifying, sandblasting, surface sanding (nylagrit) and waterblasting.

Chemical Preparation:
Acid Etch using standard grade muratic acid (hydrochloric acid) at a ratio of 4 parts tap water and 1 part muratic acid. Pour mixture onto the concrete evenly placing "fresh" materials over the entire surface. Scrub with stiff bristle brush or automatic scrubber. Do not allow surface to dry. Rinse surface using ample amounts of water. Use wet vacuum to remove material from surface. Repeat process until the surface is the equivalent of medium grade sandpaper.

Proper evaluation of the substrate to determine the appropriate preparation needed to apply this coating is the sole responsibility of the applicator.

APPLICATION:
Bond strength of this coating over existing coatings should be determined by pre-testing. This coating must be applied over previously primed substrates. Always mix with new or uncontaminated mixing paddles. Mix this product well before use. Premix both components before mixing together. Mix ratio is 2 parts A to 1 part B. Apply with brush, roller, or conventional spray. The first coat should be completely tack free before recoating. The second coat should be applied between 16 and 24 hours after the first coat (under normal curing conditions). If the coating is allowed to cure longer than 24 hours then sand screening to a uniform sanding is achieved. Do not apply coating unless substrate temperature is 50° F and rising or 95 °F and falling. To lessen bubbling of the coating avoid excessive agitation of the liquids with the roller or applicator. It is recommended that this coating system not be exposed to water or moisture during mixing, application and cure. Contamination with moisture can cause premature curing, whitening and bubbles in the film. This coating is not designed in applications where the coated surface is immersed in water for extended lengths of time. Clean up tools with Xylene or 246 Reducer. CRU246 can be thinned 1 pint per gallon (approx. 10%) with Xylene, MEK or 246s CRU Reducer. (Observe local and federal government regulations regarding V.O.C. (Volatile Organic Contents). DISPOSE OF ALL WASTE IN ACCORDANCE WITH LOCAL STATE AND FEDERAL GOVERNMENT REGULATIONS.

KEEP OUT OF THE REACH OF CHILDREN.
THIS MATERIAL IS COMBUSTIBLE. KEEP AWAY FROM FLAMES. Do not take internally. Immediately wash hands or any part of your body, which comes into, contact with this product. Wear appropriate protective equipment. Avoid breathing vapor, mist or fumes. Use appropriate respirator for solvent systems and use only in well-ventilated areas. Do not use in tank or pit without proper protection. Use product in accordance with this product data sheet, any variance voids all warranties and liabilities. READ MATERIAL SAFETY DATA SHEET BEFORE USE OF THIS PRODUCT.

IMPORTANT NOTICE TO PURCHASER:
This system is designed for the experienced contractor and applicator. The information contained in this document is furnished without warranty, representation, inducement or license of any kind, except that it is accurate to the best of TCC Sales & Service, LLC.'s knowledge obtained from sources believed by TCC Sales & Service, LLC. to be accurate. TCC Sales & Service, LLC. does not assume any legal responsibility for use or reliance upon the information contained in this document. Qualified professionals must perform all product testing and applications. Before using any chemical product, read its Material Safety Data Sheet.

WARRANTY
This product is warranted to be free of defect to the original purchaser. Any unused product proven to be defective must be returned to the seller for replacement. Any warranty of this product is limited to the replacement of any purchased product that has been paid for in full and been shown to be defective. The seller or manufacturers only obligation shall be to replace such quantity of the product proven to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct, incidental or consequential, arising out of the use of or misuse of this product. Before using this product the applicator shall determine the suitability of this product for the intended use and the applicator assumes all liability whatsoever in connection therewith.

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CHEMICAL RESISTANCE CHART

Inorganic Acids	Rating	Solvents	Rating
10% Hydrochloric Acid	E	Methyl Ethyl Ketone	G
37% Hydrochloric Acid	E	Xylene	E
10% Nitric Acid	G	Toluene	G
50% Nitric Acid	G*	Isopropanol	G
10% Phosphoric Acid	E	Ethanol	G
50% Phosphoric Acid	G*	Ethyl Acetate	G
10% Sulfuric Acid	E	Trichloroethylene	G
50% Sulfuric Acid	F	Mineral Spirits	E
98% Sulfuric Acid	NR	Naphtha	E
Organic Acids	**Rating**	**Food And Beverages**	**Rating**
10% Acetic Acid	G	Water	E
25% Acetic Acid	F*	Coffee	E
50% Acetic Acid	NR	Milk	E
Glacial Acetic Acid	NR	Mustard	G
85% Lactic Acid	G	Vinegar	E
50% Citric Acid	F	Vegetable Oils	E
		Beer	E
Fuels, Lubricants, Hydraulic Fluids	**Rating**	Wine	G
Gasoline	E	Whiskey	G
Transmission Fluid	E	Cola	E
Brake Fluid	E		
Skydrol	F	**Miscellaneous**	**Rating**
Jet Fuel A-1	E	Blood	E
Motor Oil	E	Urine	E

* Stains

Tests were conducted on samples cured 7 days at room temperature. This chart should be used to determine the effect of the chemicals illustrated all chemicals not listed should be evaluated separately. Samples were tested on a pigmented film applied over VC155p Waterborne Epoxy Primer. A ratings key is as follows:

RATINGS
E = Excellent
G = Good
F = Fair
NR = Not Recommended

TROUBLESHOOTING

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PROBLEMS	CAUSES
Orange Peel Finish	Coating applied too heavy. Coating applied over hot surface or cured in too hot conditions. Coating applied over incompatible existing surface. Recoating too soon.
Wrinkling of Film	Product applied too heavy. Coating applied over uncured film. Surface hot when coating is applied. Recoating too soon. Coating applied over incompatible existing coating.
Slow Cure or Poor Cure	Surface temperatures too cold. Poor mixing of the A & B components. Improper mixing ratios. Poor ventilation during application and cure. Coating applied too thick. Use of excessive reducer. Poor choice of reducer. Excessive use of "Cabosil" or fumed silica type of thickening agent.
Poor Gloss, Dull Finish	Solvents trapped in film due to inadequate ventilation during application and cure. Poor choice of reducer. Excessive use of non-skid additive. Excessive use of "Cabosil" or fumed silica type of thickening agent.
Whitening on or in the Cured Film	Film applied when surface still had moisture in it. Coating is exposed to water before completely cured.
Roller Marks in the Finish	High surface and ambient temperatures when applying. Use of fast solvent reducer when temperatures are too high. Humidity too high during application. Extra catalyst added to product. Product applied too thin.
Bubbles in the finish (1mm – 6mm)	Coating applied too soon over primer or undercoat. Extra catalyst added to product. Product applied too heavy. Temperature too high (over 90ºF.) during application. Incorrect choice of rollercover.
Bubbles in the Finish (greater than 6mm)	Humidity too high during application. Extra catalyst added to product. Product applied too heavy.
Coating Curing Fast	Use of fast solvent reducer when temperatures are too high. High surface and ambient temperatures when applying. Poor mixing of the A & B components, too much catalyst in mix.
Fisheyes; Crawling	Improper substrate cleaning. Surface contamination from oil, grease, silicone, sweat, or mold release agents, etc.
Pealing between Coats	Past critical recoat time when applied. Contamination between coats. Recoating too late. Improper mixing ratios, extra catalyst added to product.

DISPOSAL: DISPOSE OF ALL WASTE IN ACCORDANCE WITH LOCAL STATE AND FEDERAL GOVERNMENT REGULATIONS. Empty containers may contain coating residue, including flammable liquids or explosive vapors. Do not cut, puncture or weld on or near container. All label warnings must be observed until the container has been commercially cleaned or reconditioned.

File Name: TDS CRU246(R)12-12.doc

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