



**SHERWIN
WILLIAMS.**

Chemical Coatings

CC-C5

OPEX[®] Clear Lacquers

Clear Bronzing Lacquer T82C5
Clear Acrylic Metal Lacquer T82C13

<u>DESCRIPTION</u>	<u>CHARACTERISTICS</u>																																																																																											
<p>OPEX[®] Clear Lacquers are designed for use on metal surfaces for industrial product finishing.</p> <p>Advantages:</p> <ul style="list-style-type: none"> • Fast air drying • Full gloss • No critical recoat time • Free of lead and chromate hazards • T82C5 is an ethyl cellulose lacquer intended for producing metallic bronze effects using aluminum and copper bronze powders • T82C13 is an acrylic lacquer intended for use as is or blended with aluminum pastes. It offers the best durability on exterior applications. It can be used on aluminum, brass, copper, and other nonferrous metals <p>Performance Tests</p> <p>Hardness: Print Test at one psipasses After drying one hour at 77°F, product shows no marring or film transfer</p> <p>Flexibility Conical Mandrel Testpasses after 72 hours drying, on 20 gauge cold rolled steel, at 1 mil dft.</p>	<table border="0"> <tr> <td>Product:</td> <td>T82C5</td> <td>T82C13</td> </tr> <tr> <td>Resin Type:</td> <td>Ethyl cellulose</td> <td>Acrylic</td> </tr> <tr> <td>Gloss:</td> <td>Full, 85+</td> <td>Full, 85+</td> </tr> <tr> <td>Volume Solids:</td> <td>9.8 ± 1%</td> <td>12.4 ± 1%</td> </tr> <tr> <td>Viscosity:</td> <td></td> <td></td> </tr> <tr> <td> seconds #2 Zahn Cup</td> <td>17 - 20</td> <td>—</td> </tr> <tr> <td> seconds #4 Zahn Cup</td> <td>—</td> <td>17 - 21</td> </tr> <tr> <td> seconds #4 Ford Cup</td> <td>15 - 18</td> <td>48 - 70</td> </tr> <tr> <td>Recommended film thickness:</td> <td></td> <td></td> </tr> <tr> <td> Interior</td> <td></td> <td></td> </tr> <tr> <td> Mils Wet</td> <td>5.1 - 6.2</td> <td>4.0 - 4.8</td> </tr> <tr> <td> Mils Dry</td> <td>0.5 - 0.6</td> <td>0.5 - 0.6</td> </tr> <tr> <td> Exterior (achieved with multiple coats)</td> <td></td> <td></td> </tr> <tr> <td> Mils Dry (clear)</td> <td>—</td> <td>1.0 - 1.2</td> </tr> <tr> <td> Mils Dry (as metallic)</td> <td>—</td> <td>1.25 - 1.5</td> </tr> <tr> <td>Spreading Rate @ 0.5 - 0.6 mils DFT:</td> <td></td> <td></td> </tr> <tr> <td> sq ft/gal</td> <td>235 - 346</td> <td>305 - 430</td> </tr> <tr> <td>Drying (77°F, 50% RH):</td> <td></td> <td></td> </tr> <tr> <td> Tack Free:</td> <td>5-10 minutes</td> <td>5-10 minutes</td> </tr> <tr> <td> To Recoat:</td> <td>no critical recoat</td> <td>no critical recoat</td> </tr> <tr> <td> To Pack:</td> <td>2-4 hours</td> <td>2-4 hours</td> </tr> <tr> <td> Force Dry:</td> <td>10-15 minutes at 160°F</td> <td>10-15 minutes at 160°F</td> </tr> <tr> <td> Good air movement is more important than heat</td> <td></td> <td></td> </tr> <tr> <td>Flash Point:</td> <td>30°F PMCC</td> <td>23°F PMCC</td> </tr> <tr> <td>Package Life:</td> <td>3 years, unopened</td> <td>3 years, unopened</td> </tr> <tr> <td>Air Quality Data:</td> <td>Photochemically reactive</td> <td>Non-Photochemically reactive</td> </tr> <tr> <td>Volatile Organic Compounds (VOC)</td> <td></td> <td></td> </tr> <tr> <td> as packaged, maximum</td> <td>6.4 lb/gal, 768 g/L</td> <td>6.05 lb/gal, 726 g/L</td> </tr> <tr> <td> reduced 25% with Xylol:</td> <td>6.6 lb/gal, 792 g/L</td> <td>—</td> </tr> <tr> <td> reduced 125% with R7K120:</td> <td>—</td> <td>6.35 lb/gal, 762 g/L</td> </tr> </table> <p>An Environmental Data Sheet is available from your local Sherwin-Williams facility.</p>		Product:	T82C5	T82C13	Resin Type:	Ethyl cellulose	Acrylic	Gloss:	Full, 85+	Full, 85+	Volume Solids:	9.8 ± 1%	12.4 ± 1%	Viscosity:			seconds #2 Zahn Cup	17 - 20	—	seconds #4 Zahn Cup	—	17 - 21	seconds #4 Ford Cup	15 - 18	48 - 70	Recommended film thickness:			Interior			Mils Wet	5.1 - 6.2	4.0 - 4.8	Mils Dry	0.5 - 0.6	0.5 - 0.6	Exterior (achieved with multiple coats)			Mils Dry (clear)	—	1.0 - 1.2	Mils Dry (as metallic)	—	1.25 - 1.5	Spreading Rate @ 0.5 - 0.6 mils DFT:			sq ft/gal	235 - 346	305 - 430	Drying (77°F, 50% RH):			Tack Free:	5-10 minutes	5-10 minutes	To Recoat:	no critical recoat	no critical recoat	To Pack:	2-4 hours	2-4 hours	Force Dry:	10-15 minutes at 160°F	10-15 minutes at 160°F	Good air movement is more important than heat			Flash Point:	30°F PMCC	23°F PMCC	Package Life:	3 years, unopened	3 years, unopened	Air Quality Data:	Photochemically reactive	Non-Photochemically reactive	Volatile Organic Compounds (VOC)			as packaged, maximum	6.4 lb/gal, 768 g/L	6.05 lb/gal, 726 g/L	reduced 25% with Xylol:	6.6 lb/gal, 792 g/L	—	reduced 125% with R7K120:	—	6.35 lb/gal, 762 g/L
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	<p>General: Substrate should be free of grease, oil, dirt, fingerprints, drawing compounds, any contamination, and surface passivation treatments to ensure optimum adhesion and coating performance properties. Consult Metal Preparation Brochure CC-T1 for additional details.</p> <p>Aluminum: T82C5 exhibits poor adhesion on bare aluminum. T82C13 may be applied directly to properly cleaned aluminum.</p> <p>Steel or Iron: Remove rust, mill scale, and oxidation products. For best results, treat the surface with a proprietary surface chemical treatment of zinc or iron phosphate to improve corrosion protection. On clear coating applications where metal show through is desired, priming is not practical.</p> <p>Testing: Due to the wide variety of substrates, surface preparation methods, and application methods and environments, the customer should test the complete system for adhesion and compatibility prior to full scale application.</p>																																																																																											

Recommended Uses

Ferrous interior and limited exterior
 Nonferrous interior and exterior
 Wood and wood products interior
 Wood and wood products exterior
 Mix with aluminum powder or paste
 Mix with bronze powder or paste
 Mix with copper powder or paste

T82C5

OK
 interior only
 OK
 NO
 OK*
 OK*
 OK*

T82C13

OK
 OK
 OK
 NO
 OK*
 NO
 NO

*6-8 oz of aluminum paste or aluminum, bronze, or copper powder per gallon of lacquer. Mix well to disperse uniformly.

Performance Information

Yellowing resistance	Good	Excellent
Gasoline resistance	Poor	Good

APPLICATION

With high humidity, it may be necessary to use Retarder Thinner, R7K27, in T82C13 to reduce or eliminate blushing.

Conventional Spray:

	T82C5	T82C13
Reducer	Xylol, R2K4	Lacquer Thinner, R7K120
Reduction Rate	10-25%	100-125%

Dip:

	T82C5	T82C13
Reducer	Toluene, R2K1	Lacquer Thinner, R7K22
Reduction Rate	10-25%	75-100%

Excessive agitation or turbulence on part immersion or withdrawal may cause foaming. Tank maintenance (agitation, turnover rate, viscosity control, and stability) is required

Cleanup:

Clean tools/equipment immediately after use with reducer solvent.
 Follow manufacturer's safety recommendations when using any solvent.

SPECIFICATIONS**Product Limitations:**

- Do not use on exterior wood products.
- T82C13 will quickly gel if mixed with bronze or copper powder and film will drift greener in color upon aging.
- T82C5 is not recommended for exterior use over nonferrous metals due to poor adhesion.
- Greater amounts of metallic powder will increase the brilliance of the finished product, but will reduce the gloss and film durability.
- In very hot or humid conditions, Retarder Thinner, R7K27, may be needed to avoid blushing in T82C13.
- T82C5 and T82C13 should not be mixed with Opex L61 colors for tinting purposes - they are insoluble.

CAUTIONS

Thoroughly review product label for safety and cautions prior to using this product.

A Material Safety Data Sheet is available from your local Sherwin-Williams facility.

Please direct any questions or comments to your local Sherwin-Williams facility.

LABEL CAUTIONS

SEE CONTENTS STATEMENT ON LABEL.

Contents are **FLAMMABLE**. Vapors may cause flash fires. Keep away from heat, sparks, and open flame. During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

VAPOR HARMFUL. Use only with adequate ventilation. Wear an appropriate properly fitted vapor/particulate respirator (NIOSH approved) during and after application, unless air monitoring demonstrates vapor/mist levels are below applicable limits. Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

FIRST AID: If **INHALED:** If affected, remove from exposure. Restore breathing. Keep warm and quiet. If on **SKIN:** Wash affected area thoroughly with soap and water. Remove contaminated clothing. Launder before re-use. If in **EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention. If **SWALLOWED:** Do not induce vomiting. Call Poison Control Center, hospital emergency room, or physician immediately.

SPILL AND WASTE: Remove all sources of ignition. Ventilate and remove with inert absorbent. Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulation regarding pollution.

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.

Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.

FOR INDUSTRIAL USE ONLY.

SEE MATERIAL SAFETY DATA SHEET. 21396-051905.

Note: Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling and methods of application which are not known or under our control, The Sherwin-Williams Company cannot make any warranties as to the end result.