



CHEMICAL COATINGS

PRODUCT
DATACC-
C5

OPEX® CLEAR LACQUERS

Clear Bronzing Lacquer T82 C 5

Clear Metal Lacquer T82 C 12

Acrylic Clear Metal Lacquer T82 C 13

PRODUCT DESCRIPTION

OPEX® Clear Lacquers are designed for use on metal surfaces for industrial product finishing.

Advantages:

1. Fast air drying.
2. Full gloss
3. Non-photochemically reactive except T82 C 5.
4. No critical recoat time.
5. T82 C 5 is an ethyl cellulose lacquer intended for producing metallic bronze effects using aluminum and copper bronze powders.
6. T82 C 12 is a nitrocellulos lacquer intended for use as is or blended with OPEX L 61 Lacquers or aluminum pastes.
7. T82 C 13 is an acrylic lacquer intended for use as is or blended with aluminum pastes. It offers best durability on exterior applications.

CHARACTERISTICS

Gloss:	Full (85 +)
Volume Solids:	See Back
Viscosity:	See Back
Spreading Rate:	See Back
Package Life:	3 years
Drying:	Air dry at 77°F, (25°C) 50% RH.
	Tack Free: 5-10 minutes.
	To Pack: 2-4 hours.
	To Recoat: No critical time.
Force Dry:	10-15 minutes @ 160°F (82°C) and cool. Good air move- ment is more important than heat.
Bake Schedule:	Do not bake.
Flash Point:	23-30°F Pensky- Martens Closed Cup.

Air Quality Data:

Non-Photochemically Reactive except T82 C 5.
Free of lead and chromate hazards.
Volatile Organic Compounds (VOC).
(See back)

Hardness:

Withstands print test of one psi after one hour air dry @ 25°C (77°F) with no marring or film transfer.

Flexibility:

After 72 hours air dry, a one mil thick film withstands Conical Mandrel test on 20 gauge cold rolled steel panel.

Product Limitations:

1. OPEX Clears are not recommended over wood or wood products for exterior use.
2. T82 C 12 and T82 C 13 will gel when mixed with Bronze or Copper powder and dry film will drift greener in color upon aging.
3. T82 C 5 and T82 C 13 should not be mixed with OpeX L61 Line Colors for tinting purposes.
4. T82 C 5 and T82 C 12 are not recommended for exterior use over non-ferrous metals such as Aluminum due to lack of adhesion.
5. Greater amounts of metallic powders will increase the brilliance of the finished product but will reduce the gloss and film durability.
6. T82 C 12 when tinted or shade with OPEX Lacquer L61 E 28, L61 Y 25, or L61 R 24, will CONTAIN LEAD AND SHOULD NOT BE USED OVER PRODUCTS AND AREAS ACCESSIBLE TO CHILDREN.
7. Under very hot or humid conditions, increased amounts of Retarder R7 K 27 may be

SPECIFICATIONS

Surface:

Surface to be coated should be free of grease, oil, dirt, drawing compounds or other foreign matter. CONSULT METAL PREPARATION BROCHURE, T-1.

Iron and Steel:

Chemical treatment (iron or zinc phosphate) and/or a primer such as KEM FLASH PRIME™, is recommended for better corrosion resistance where possible. On clear coating application where metal show through is desired, priming is not practical.

Aluminum and Galvanized Iron:

Prime with Industrial Wash Primer P60 G 2 when topcoated with opaque coatings. T82 C 5 and T82 C 12 will exhibit poor adhesion on bare aluminum.

Application:

Recommended Film Thickness:

Interior—0.5-0.6 mils
Exterior—1.0-1.2 mils (use T82 C 13)
Exterior—1.25-1.5 mils (as metallic topcoat)

Spray:

Conventional:	See back
Dip:	See back
Brush:	Not recommended

Clean-Up:

Use thinners as specified for each Clear Metal Lacquer.

Safety Cautions:

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.

MAKES CONTAIN KETONES, TOLUENE, XYLENE, ALCOHOLS & ACETATES

VAPOR HARMFUL. Use only with adequate ventilation. Wear an appropriate properly fitted vapor/particulate respirator (NIOSH/MSHA approved) during and after application, unless air monitoring demonstrates vapor/mist levels are below applicable levels. Follow respirator manufacturer's directions for respirator use.

Avoid contact with Skin and eyes. 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.

(continued from column 3)

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: Get medical attention 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.

**DO NOT TAKE INTERNALLY
KEEP OUT OF THE REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY**

Refer to Material Data Sheet for further information.

Note:

The information, rating and opinions stated, 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 not under our control, The Sherwin-Williams Company cannot make any warranties or guarantees as to the end results.

	T82 C 5	T82 C 12	T82 C 13
	ETHYLCELLULOSE	NITROCELLULOSE	ACRYLIC
Resin Type	9.9	14.7	12.4
Volume Solids: (%)	17-20	25-35	
Viscosity: Seconds			17-21
Zahn 2			
Zahn 4			48-70
Ford 4	15-18	20-25	
Spreading Rate: sq. ft./gal. at 1.0 mil dry film.			
No Loss	160	235	200
Volatile Organic Compounds (VOC) lbs./gal.	6.40	5.75	6.05
as packaged (maximum) gms./liter	768	690	726
VOC as reduced for application (Maximum)	25% w/Xylene 6.6 lb./gal. (792 gms/ltr)	Do not reduce	125% with R7 K 120 6.35 lb./gal. (762 gms/ltr)
Recommended Usage:			
Ferrous Metals for Ext. & Int. (Steel)	OK	Int. only	OK
Non Ferrous Metals for Ext. & Int. (Aluminum)	Int. only	Int. only	OK
Wood or Wood Products Interior	OK	OK	OK
Wood or Wood Products Exterior	NO	NO	NO
Mix with Aluminum Powder or Paste	OK*	OK*	OK*
Mix with BRONZE Powder or Paste	OK*	NO	NO
Mix with COPPER Powder or Paste	OK*	NO	NO
Yellowing Resistance	GOOD	FAIR	EXCELLENT
Intermix with OPEX L61 Lacquer Colors	NO	OK	NO
Gasoline Resistance	NO	EXCELLENT	GOOD
*When used according to recommended formula.			
FORMULA: 6-8 ounces per gallon Aluminum Paste: or Aluminum, Copper or Bronze Powder. Mix well to disperse uniformly.			
Application:			
Spray Conventional:			
Reducer R2 K 1(Toluene) or R2 K 4 (Xylene)%	10-25	NO	NO
Reducer OPEX Lacquer Thinner, R7 K 120 or R7 K 22 %	NO	NONE**	100-125
Dip:			
Reducer R2 K 1 (Toluene) or R2 K 4 (Xylene)%	10-25	NO	NO
Reducer R7 K 22 or R7 K 27 as needed%	NO	NONE**	75-100

**Preduced