

# RAILCAR COATINGS of AMERICA

## THE RIGHT CHEMISTRY

### AC31 SERIES ACRYLIC URETHANE FINISH

#### DESCRIPTION & USES

AC31, is a two component, acrylic urethane formulated for use as a exterior coating finish for railcars. Formulated to provide high gloss and color retention. Suitable as a finish for two coat systems applied over kaolin clay or commodity tank cars where long lasting finishes are required.

#### SURFACE PREPARATION

**BLAST:** NACE #2/ SSPC-SP 6

**PROFILE:** Avg. depth 1.5 – 2.0 mils

#### APPLICATION SUMMARY\*

**EQUIPMENT:** 45:1 ratio pump with 0.017 to 0.019 inch diameter orifice for airless spray gun tip at a 2800 psi minimum fluid pressure at tip to obtain proper atomization. An artist airbrush can be used for touchup of WFT marks and other small repairs

#### REQUIRED CONDITIONS:

Noncontaminated profile  
Dry, dust-free metal surface  
Metal temperature above 60 F  
Metal temperature 5 degrees above dew point  
Ambient temperature above 50 F  
Humidity less than 90%  
Material temperature between 70 and 90 F

**SAFETY:** Consult MSDS for proper handling, cleanup, disposal and use of personal protective equipment before use.

#### Air Dry Schedule

Full cure 7 days @ 77 F

\***NOTE:** see detailed application instructions on separate sheet before application

#### PHYSICAL DATA

Finish ----- high gloss

\*Colors ----- varies

Mixing Ratio ----- 4:1 by volume

Volume Solids ----- 59% (mixed)

VOC ----- 2.7 lbs/gal (324 g/l) mixed

Flash Point ----- <73 °F

Recommended Wet Film Thickness ---- 3.5 - 5.0 mils

Dry Film Thickness ----- 2.0 – 3.0 mils

Theo. Coverage at Proper Thickness -- 316 –473 sq ft/gal

Induction Time ----- none required

Thinner -----TH313 or TH314

Pot Life (1b mix @ 77 F) ----- 4 hours

Shelf Life ----- 1 year

\*\*Dry Times (at 77 F)

Set to touch ----- 2-4 hrs

Tack Free ----- 4-6 hrs

Dry Hard -----10 hrs

Recoat -----12 hrs

#### SAFETY INFORMATION

#### **WARNING! FLAMMABLE, HARMFUL IF INHALED, CAUSES IRRITATION**

Keep away from sparks or flames. Vapors may cause flash fire. Use with adequate ventilation. Do not breathe vapors or spray mist. Wear an appropriate, properly fitted respirator during and after applications unless air monitoring demonstrates vapor/mist levels are below applicable limits. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

Consult MSDS before use

#### SHIPPING DATA

Proper Shipping Name ----- Paint Liquid

Hazard Class----- Combustible Liquid

UN No. -----UN1263

\*Colors---Black, White, Gray, Red and other colors subject to minimum order.

#### DISCLAIMER

The facts stated and the recommendations and suggestions herein are based upon experiments and supplier information believed to be reliable. No guarantee is made of their accuracy, however, and American Coatings ASSUMES NO LIABILITY FOR PRODUCT FAILURE OTHER THAN TO SUPPLY REPLACEMENT MATERIAL FOR PRODUCTS SHOWN TO BE DEFECTIVE WHEN DELIVERED OR TO REFUND THE PURCHASE PRICE. Except as stated, THERE ARE NO WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE. AMERICAN COATINGS SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL AND CONSEQUENTIAL DAMAGES. No statement contained herein shall be construed as an inducement to infringe existing patents or as an endorsement of specific manufacturers.

REVISED 04/17/09

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PERFORMANCE DATA

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SUBSTRATE: STEEL  
SURFACE PREPARATION: SSPC-SP6  
PRIMER: AC22 @ 5.0 MILS DFT  
TOPCOAT: AC31 @ 3.0 MILS DFT

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ABRASION RESISTANCE

TEST: ASTM D4060, CS17 WHEEL, 1000 CYCLES, 1 KG LOAD  
RESULTS: 142 MG LOSS

ADHESION

TEST: ASTM D4521  
RESULTS: 1000+ PSI

DIRECT IMPACT RESISTANCE

TEST: ASTM G14  
RESULTS: 60 IN. LBS

DRY HEAT RESISTANCE

TEST: ASTM D2485  
RESULTS: 200 DEG., YELLOWING

FLEXIBILITY

TEST: ASTM D522, 180 DEG. BEND, 7/16" MANDREL  
RESULTS: PASSES

PENICL HARDNESS

TEST: ASTM D3363  
RESULTS: B

SALT FOG RESISTANCE

TEST: ASTM, B117, 500 HRS  
RESULTS: EXCELLENT; NO BLISTERING, CRACKING OR DELAMINATION, 1/16" RUST  
CREEPAGE AT SCRIBE

SOLVENT RESISTANCE

TEST: ASTM D-5402  
RESULTS: 300+, 7-DAY CURE

EXTERIOR DURABILITY

TEST: 1 YEAR, 45 DEG SOUTH  
RESULTS: EXCELLENT