DESCRIPTION

Surface Tolerant Epoxy Railcar Exterior Coating

PRINCIPAL CHARACTERISTICS

- Durable exterior coating for rail
- Fast drying properties
- Low VOC
- Excellent adhesion

COLOR AND GLOSS LEVEL

- Black, White
- Gray
- Semi-gloss

Note: Epoxy coatings will characteristically chalk and fade upon exposure to sunlight. Light colors are prone to ambering to some extent

BASIC DATA AT 68°F (20°C)

Data for mixed product		
Number of components	Two	
Volume solids	72 ± 2%	
VOC (Supplied)	max. 2.1 lb/US gal (approx. 248 g/l)	
Temperature resistance (Continuous)	To 250°F (121°C)	
Temperature resistance (Intermittent)	To 350°F (177°C)	
Recommended dry film thickness	6.0 - 8.0 mils (152 - 200 μm) per coat	
Theoretical spreading rate	289 ft²/US gal for 4.0 mils (7.2 m²/l for 100 μm)	
Shelf life	Base: at least 36 months when stored cool and dry Hardener: at least 24 months when stored cool and dry	

Notes:

- See ADDITIONAL DATA Overcoating intervals
- See ADDITIONAL DATA Curing time

- Color will drift at elevated temperatures

- Intermittent temperature resistance should be less than 5% of the time, and maximum 24 hours



RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Coating performance is, in general, proportional to the degree of surface preparation
- Abrasive blasting is usually the most effective and economical method. When this is impossible or impractical, coating can be applied over mechanically cleaned surfaces
- All surfaces must be clean, dry and free of all contaminants, including salt deposits. Contact PPG for maximum allowable salt containment levels

Mild steel

• Remove all loose rust, dirt, grease or other contaminants by one of the following depending on the degree of cleanliness required: SSPC SP-2, 3, 6, 7 or 10 (ISO 8501-1 St-2, St-3, Sa 1, Sa 2.5). These minimum surface preparation standards apply to steel that has been previously abrasive blasted. The choice of surface preparation will depend on the system selected and end-use service conditions

Aged coatings

- All surfaces must be clean, dry, tightly bonded and free of all loose paint, corrosion products or chalky residue
- Abrade surface, or clean with PREP 88. This product is compatible over most types of properly applied and tightly
 adhering coatings, however, a test patch is recommended to confirm compatibility

Repair

• Prepare damaged areas to original surface preparation specifications, feathering edges of intact coating. Thoroughly remove dust or abrasive residue before touch-up.

Substrate temperature and application conditions

- Surface temperature during application should be between 20°F (-7°C) and 122°F (50°C)
- Surface temperature during application should be at least 5°F (3°C) above dew point
- Ambient temperature during application and curing should be between 20°F (-7°C) and 122°F (50°C)
- Relative humidity during application should be above 0% and below 85%

SYSTEM SPECIFICATION

- Primers: Direct to substrate
- Topcoats: AMERCOAT 450-series polyurethanes, AMERSHIELD, PSX 700, PSX One, AMERCOAT 220-series Acrylics, PITTHANE series urethanes, DURATHANE DTM

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 50:50 (1:1)

• Pre-mix base component with a pneumatic air mixer at moderate speeds to homogenize the container. Add hardener to base and agitate with a power mixer for 1–2 minutes until completely dispersed

Induction time

None



Pot life 1 hour at 70°F (21°C)

Note: See ADDITIONAL DATA - Pot life

Application

- Area should be sheltered from airborne particulates and pollutants
- Ensure good ventilation during application and curing
- Provide shelter to prevent wind from affecting spray patterns
- · Avoid combustion gases or other sources of carbon dioxide that may promote amine blush and ambering of light colors
- Bulletin #1489 for further information on prevention, detection, and removal of amine blush

Material temperature

Material temperature during application should be between 50°F (10°C) and 90°F (32°C)

Airless spray

- 45:1 pump or larger
- · Can be applied with plural component equipment
- Mix using a dual 24-element static mixer. Pre-mix and maintain agitation on both components. Spray at 80-100°F at the gun

Recommended thinner

THINNER 91-82 (AMERCOAT T-10), THINNER 21-25 (AMERCOAT 101) (recommended for > 90°F (32°C))

Volume of thinner

0 - 5%, depending on required thickness and application conditions

Nozzle orifice

0.017 - 0.019 in (approx. 0.43 - 0.48 mm)

Brush/roller

• Use a high quality natural bristle brush and/or solvent resistant, 3/8" nap roller. Ensure brush/roller is well loaded to avoid air entrainment. Multiple coats may be necessary to achieve adequate film-build

Recommended thinner

AMERCOAT T-10, AMERCOAT 101 (recommended for >90°F (32°C))

Volume of thinner

Up to 5% THINNER can be added if desired

Cleaning solvent

AMERCOAT 12 CLEANER or AMERCOAT 65 THINNER (xylene)



ADDITIONAL DATA

Overcoating interval for DFT up to 5.0 mils (125 μm)					
Overcoating with	Interval	32°F (0°C)	50°F (10°C)	70°F (21°C)	90°F (32°C)
itself	Minimum	24 hours	6 hours	3 hours	1 hour
	Maximum	3 months	2 months	30 days	14 days
urethane and PSX	Minimum	24 hours	6 hours	3 hours	1 hour
	Maximum	30 days	21 days	10 days	4 days

Notes:

- Dry times are dependent on air and surface temperatures as well as film thickness, ventilation, and relative humidity. Maximum recoating time is highly dependent upon actual surface temperatures not simply air temperatures. Surface temperatures should be monitored, especially with sun-exposed or otherwise heated surfaces. Higher surface temperatures shorten the maximum recoat window
- Surface must be clean and dry. Any contamination must be identified and removed. A detergent wash with PREP 88 or equivalent is required prior to application of topcoats after 30 days of exposure. However, particular attention must be paid to surfaces exposed to sunlight where chalking may be present. In those situations, a further degree of cleaning may be required. PPG Technical Service can advise on suitable cleaning methods. If maximum recoat/topcoat time is exceeded, then roughen surface.

Curing time for DFT up to 5.0 mils (125 μm)			
Substrate temperature	Dry to touch	Dry to handle	
32°F (0°C)	24 hours	38 hours	
50°F (10°C)	8 hours	13 hours	
70°F (21°C)	2.5 hours	4.5 hours	
90°F (32°C)	1 hour	2 hours	

Pot life (at application viscosity)		
Mixed product temperature	Pot life	
32°F (0°C)	4 hours	
50°F (10°C)	2 hours	
70°F (21°C)	1 hour	
90°F (32°C)	30 minutes	

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes



WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

REFERENCES

•	CONVERSION TABLES
---	-------------------

- EXPLANATION TO PRODUCT DATA SHEETS
- SAFETY INDICATIONS
- SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD TOXIC HAZARD

INFORMATION SHEET	1410
INFORMATION SHEET	1411
INFORMATION SHEET	1430
INFORMATION SHEET	1431

WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shell life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer form recovery under this warranty.

LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppgpmc.com. The English text of this sheet shall prevail over any translation thereof.

Packaging: Available in 5 gallon kits (2.5 gallons of base and 2.5 gallons of hardener); also available in 55 gallon drums and 200 gallon tote tanks

Product code	Description
AK2LV-2	Gray Base
AK2LV-3	White Base
AK2LV-9	Black Base
AK2LV-B	Hardener
AK2LV-BLH	Low Haps Hardener

The PPG logo, and all other PPG marks are property of the PPG group of companies. All other third-party marks are property of their respective owners.

