Henkel Technologies

Technical Information Bulletin

TURCOAT® LIQUID ACCELAGOLD

ALUMINUM CONVERSION COATING

DESCRIPTION:

TURCOAT LIQUID ACCELAGOLD is a clear, yellow orange solution designed to produce a golden iridescent chemical film or conversion coating on aluminum surfaces to enhance corrosion resistance and paint adhesion.

FEATURES:

TURCOAT LIQUID ACCELAGOLD offers these features:

1. Meets MIL-C-81706 Amend 5, Class 1A, Form III - (MIL-C-5541B specifies the use of materials qualified under MIL-C-81706)
2. Supplied in liquid form
3. Used as received, no mixing or dilution required
4. Easy to control by pH
5. Can be used in immersion or spray systems

USE INSTRUCTIONS:

Tanks: Immersion tanks, spray systems and associated equipment should be fabricated from 316 stainless steel or of equivalent acid-proof materials.

PRECLEANING:

General: Aluminum surfaces must be free from greases, marking inks and other soils. Cleaning must be such that no water-break is observed when parts are taken out of cold running water. Consult your local TURCO Sales Engineer for recommendations on an appropriate cleaning process.

DEOXIDIZING:

General: To insure that the aluminum surface is active and receptive, it is best to include a deoxidizing step with most alloys prior to conversion coating. For maximum salt spray resistance, however, it may be advisable to avoid deoxidizing of certain alloys.

Preparation of Bath: Use TURCOAT LIQUID ACCELAGOLD as received. Check pH of solution. It should be in the range 1.5 to 1.9. The pH may change after standing. Correct pH of the bath with small amounts of nitric acid for high pH or small amounts of ammonium hydroxide for low pH.

PROCESSING INSTRUCTIONS CLASS 1A:

Spray System: Operate at 20°to 30°C with contact time of 15 seconds to 2 minutes. Exact time is dependent upon alloy being processed. Normal spray pressure should be from 10 to 20 psi. Rinse parts thoroughly with clean, cool tap water followed by spray deionized water rinse at low pressure, approximately 20 psi.

Immersion System: Operate bath at 25° to 30°C with immersion time of 15 seconds to 10 minutes. Actual time in solution is dependent upon alloy being processed. Rinse parts thoroughly with clean, tap water followed by a final rinse of deionized water. Dry coated parts by any conventional methods. Drying temperature should not exceed 55°C for optimum corrosion resistance. Allow parts to air dry (without heat) for maximum resistance.

CONTROL:

pH Control: Close pH control is important. Maximum corrosion resistance is promoted by keeping the pH near 1.7. Freedom from smearing of wet parts is achieved by keeping pH near the upper limits of the recommended pH range. The use of a reliable pH meter is recommended. If a pH meter is not available, use Paul Frank No. 1028 pH paper or equivalent paper of pH range from 0 to 2.5.

DISPOSAL INFORMATION:

Dispose of spent solution per local, state and regional regulations. Refer to TURCO MATERIAL SAFETY DATA SHEET for additional disposal information.

WARNING! Contact may cause burns to skin and eyes. Harmful if swallowed.

TURCOAT LIQUID ACCELAGOLD contains chromic acid and fluosilicate. Avoid contact with eyes, skin and clothing. Do not take internally. Use with adequate (equivalent to outdoor) ventilation.

Protective clothing, such as a chemical face shield or goggles and gloves, boots and apron made from acid resistant neoprene should be worn when handling and using this product. A NIOSH-approved

respirator equipped with a mist filter, such as U.S. Bureau of Mines number 2175, Model 7100 or American Optical R2090 Red Devil or equivalent protection should be worn during misting conditions.

Store containers in cool, dry, ventilated areas, away from acids, combustible organic and reducing agents. Keep containers tightly closed. Store away from eating areas. Do not store containers near heat, open flames or metals.

Before using this product refer to container label and TURCO MATERIAL SAFETY DATA SHEET for additional precautionary, handling and first aid information.

NOTICE:

The above information and recommendations concerning this product are based upon our laboratory tests and field use experience with these or similar products. However, since conditions of actual use are beyond our control, any recommendations or suggestions are made without warranty, express or implied. Manufacturer's and seller's sole obligation shall be to replace that portion of the product shown to be defective. Neither shall be liable for any loss, damage, or injury, direct or consequential, arising out of the use of this product.

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