

## **DESCRIPTION**

When water becomes entrapped between wraps of aluminum jacketing, aluminum sheet, or aluminum and another surface, the aluminum can be stained a chalky white color. This may pose problems for the insulation contractor or distributor, who may be surprised to find out that the high quality mill finish aluminum jacketing is no longer bright and shiny, but exhibits a white, chalky stain.

## **CAUSES**

Obvious sources of waterstaining include rain, snow, and water which come into contact with the surface of the aluminum. A leaking tarp on a truck, or a leaking pipe or roof in a storage area may promote the occurrence of waterstaining. Moisture from condensation may also cause water staining when a change in air temperature causes water vapor in the air to condense on the surface of the aluminum. This type of condensation may occur when cold aluminum is brought into a warm plant. The higher the humidity, the smaller the temperature change needed to produce condensation.

## **PREVENTION**

Waterstaining may occur while the aluminum is in transit to the warehouse or jobsite, or it may occur if the aluminum sheet or jacketing is stored improperly in a warehouse or at a jobsite.

- \* When receiving material via truck, unload the aluminum in weather protected areas only. Examine the shipment of jacketing carefully for evidence of water contact with the packaging carton; this includes checking for dampness and watermarks on the cardboard carton.
- \* Note any evidence of water contact on all copies of the receiving papers.
- \* Remove the jacketing from the carton and fan dry the aluminum if wetness is discovered.
- \* Inform the truck line of the problem immediately and file a freight claim with the carrier.

## **PROPER STORAGE**

Proper storage procedures include checking to see if the aluminum jacketing or sheet feels cold. If cold, temporarily place the aluminum in a cool, dry storage area so that the temperature can be raised slowly to the temperature of the permanent storage area.

- \* If the temperature difference between the storage and production areas is greater than 20°F (11°C), move only enough aluminum that can be immediately used.
- \* Avoid storage areas where condensation from overhead pipes or roof leaks may affect stored aluminum. Store aluminum only in areas that are dry.
- \* Avoid storage in areas where a sudden drop in temperature or increase in humidity may occur. Close warehouse doors during periods of large temperature swings between day and night, such as during spring and fall. Attempt to use the oldest stock first.
- \* Keep all aluminum wrapped and secured against moisture until ready to use.

Following these standard precautionary practices will minimize or eliminate the possibility of waterstaining.