WINTECH
ACCESS DOORS

Mill Finish Storage and Cleaning Recommendations

Aluminum is one of the easiest materials to keep in preserved condition with only a few minor storage and handling precautions. Aluminum materials in mill finish, with little care will maintain its original appearance for a long time. The most fundamental principal to protect aluminum is against environmental conditions (WATER). These conditions are extended periods of time with exposure to high humidity, standing water, and / or sweating and condensation caused by packing. These conditions can cause water stains on aluminum.

Depending upon the alloy or degree of oxidation, water stains are typically whitish in color and appearance, but might appear shiny. These stains are typically caused by sitting water or moisture that has been trapped between packaged materials. Water stains are only a superficial circumstance and do not change the mechanical properties of the aluminum in question.

In the event any shipment of material arrives wet or gets wet during storage, it needs to be dried before being stored again. Packaged materials that become wet need a chance to dry to alleviate this condition. Drying of materials can be done by wiping off excess water and allowing air to circulate thru the packaging or individual sticks.

If moisture can be removed promptly, staining or marks on material can typically be prevented. If staining has occurred, and the moist condition causing it is removed, the stain will not continue to develop. Once safely dry, the metal should be stored in a dry, low humidity environment. Material should be stored indoors and kept a reasonable distance away from windows and door to prevent unintentional outdoor water to settle. In the event water stains have developed refer to **Recommended Process for Cleaning Water Stains off Aluminum Extrusions** below.

Storage Recommendations

Sweating or condensation is perhaps the most troublesome cause of water stains. This situation can be prevented by avoiding conditions where the temperature of the metal drops below the dew point of the surrounding air. Ensuring that a sudden fall in temperature or increase in humidity does not occur in the places of storage is almost impossible, but if material can be stored in a climate neutral environment these spikes and falls in temperature and humidity can be reduced.

In the event material has been exposed to a condensation environment, allow material to warm to normal and dry as soon as possible. The best storage recommendation is to store material in a vertical, dry, humidity neutral environment. In the event this is not possible to store material vertically, then a constantly dry, low humid environment is even more important. It is also important in storing aluminum to avoid contact between it and other metals since this sometimes results in scratches or other marks. The use of wood faced shelving racks and bins is recommended, but not mandatory. It is also good

practice to keep aluminum away from caustics, nitrates, phosphates, acids, and ***not to store in direct contact with concrete***. Concrete will react with aluminum and cause it to disintegrate. In the continuous use of large quantities of metal, the oldest stock should be used first. Occasional checking of the stock on hand will help to prevent any serious corrosion.

Cleaning Recommendations

Where water stains have occurred, the best way to determine actual staining is by feeling the roughness of the affected area. If the stained surface is reasonably smooth to the touch, then the stain is merely superficial. In this situation the affected area can be mechanically improved by the below treatments. Scratch brushing or the use of steel wool, dish soap, and white vinegar is an effective process in removing water stains. See below.

Recommended Process for Cleaning Water Stains off Aluminum Extrusions

1. Wet the aluminum surface lightly.
2. Apply 1 drop of liquid dish soap to the aluminum water stain.
3. Scrub the stains with superfine steel wool. Do not use coarse steel wool, as it will damage the aluminum surface.
4. Soak a clean cloth in white vinegar if the water stains are still visible.
5. Lay the cloth over the water stain and let it soak for 20 minutes. This acidic solution will help remove any alkaline hard-water stains.
6. Rinse the aluminum with clear water and dry it completely. Do not let it air-dry, as it will show streaks.

Sources: Anaheim Extrusion Co. - http://www.anaheimextrude.com/extrude05.html
Hydro Aluminum, Monett MO – QC Department, Recommended Process for Cleaning Stains.

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