Chapter 15: Important Steel Roofing and Siding Information

Prepared by the Building Products Technical Committee of the National Coil Coaters Association:

Damage during installation is often caused by dragging of whole sheets, edges and corners across other sheets. Here the sacrificial or protective mechanisms of the metallic coating layers should retard red rusting. But, prevention is better than the cure. If appearance damage is significant, a fresh "touch-up repair" procedure may be necessary.

Improper cutting and drilling of pre-painted panels can cause objectionable red rust spotting. Hot metal chips from drilling, sawing or cutting disks may embed in the paint finish. Steps should be taken to protect wall and roof panels from this type of jobsite damage. Shearing is recommended whenever possible. Plan to make cuts or holes from the backside of pre-coated panels so metal shavings fall on the inside (non-exposed) panel surface.

Installation of pre-coated metal roofing may require special attention. Care should be taken by workers to avoid walking on or exerting pressure against any generated metal chips which would cause them to embed further into the paint film.

A broom or vacuum should be available during roof or wall installation to regularly remove drill or saw shavings from the coated surface.

Slightly embedded metal chips can usually be dislodged mechanically by brushing or sweeping with a stiff, fiber bristle brush or broom. If removed the same day, drill or saw shavings usually cause no permanent damage. But, under the right (wrong) conditions, unsightly red rust corrosion and staining can appear overnight.

Even though building panels themselves may not be cut, metal chips from adjacent job site work may find their way onto and into pre-coated panel surfaces. Use of simple drop cloths should provide satisfactory temporary protection.

The bottom edge of pre-coated wall panels should not contact the soil. Concrete work and final grading should direct soil and water drainage away from sidewall sheared edges.

Dirt, oil, grease, chalk lines, fingerprints or other contaminants should be removed after installation to assure proper and uniform paint finish service life performance. A quick wipe with a clean cloth, dampened with mineral spirits followed by a clear water rinse usually removes these potential problems.

TOUCH-UP REPAIR OF MINOR ERECTION SCRATCHES: *Even the most careful installation of pre-coated metal, without regard to coating type or manufacturer, is not completed without some degree of damage to paint finish. The decision to "repair or replace" on a new structure is easily made. If the area to be repaired is large, replace the panel. But if the decision is to repair, two important considerations arise: What to use? And how?*

What to Use. *Over time, under identical conditions, the "same" color in different paint types weather differently, even from the same manufacturer. Therefore, it is important color performance and quality of any touch-up paint come as close as possible to the original factory applied color coating. In other words do not expect color matched paint from the local hardware store to remain color matched throughout the structure life. Most fabricators of pre-painted metal have established sources and recommendations for the supply of color matched touch-up repair coatings for their respective products. So, it makes sense to contact them for touch-up recommendations specific to their materials. However, some universal comments apply.*

How To Do It: *Read and follow manufacturer's instructions about application and use of its particular brand of air dry coating. Pay special attention to:*

Precautions involving direct skin or eye contact, ventilation and potential flammability.

Weather constraints for proper application (e.g. temperature, humidity, dew point, etc.)

Recommended solvent adjustments, type and amount, for warm or cold weather, applications and clean-up; (slower evaporating solvents are usually recommended in warm weather, above 80 degrees F).

Surface preparation is important. Edges of deep scratches should be lightly sanded or "feathered" with #400 grit sandpaper. If a scratch extends through the paint and through the protective metal layer exposing raw steel, it should be treated with a zinc rich or similar primer before touch-up application. If feathering and/or priming are not necessary, areas to be touched-up should at least be wiped with mineral spirits to remove dirt, wax or other contaminants before color touch-up is applied.

Aerosol or spray application is not recommended for erection scratch or spot repair. The best tool for this type of repair is a good quality, 1/2" or smaller, artist brush. The very least amount of touch-up repair material should be used, and only where the original factory finish has been damaged. In most cases only the narrow edge of the paint brush should actually contact the scratch.

Galvalume Precautions

Pre-painted Galvalume steel roofing and siding is produced by ABC-MBCI (American Building Components) and McElroy Metals. If building is provided with panels from either of these manufacturers, take the following precautions:

Pre-painted Galvalume sheets are not to come in contact with wet concrete. Concrete's high alkalinity attacks aluminum in Galvalume, causing coating to peel.

Pre-painted Galvalume sheets are not to be placed in contact with copper, lead, or water run-off from either. Electrochemical reaction between these elements and aluminum-zinc alloy coating will lead to premature coating corrosion.

Otherwise, pre-painted Galvalume sheet can be stored, handled, and installed using same procedures as with pre-painted galvanized steels. Good installation practice includes metal fine removal due to drilling, cutting, or other causes from sheet surface and avoiding underlying insulation exposure to weather.

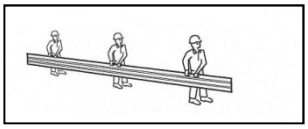
Handle bare (non-painted) Galvalume sheeting when wearing clean, dry gloves. Exercise care to prevent sheets from sliding over rough surfaces or each other. Properly installed bare Galvalume sheeting requires no special maintenance.

Handling Steel

Prior to handling any steel sheet or piece of trim, be well aware of inherent power line dangers. Never allow a steel sheet or trim to come in contact with or in close proximity to, any power line.

Exercise care of metal panels and flashings throughout application. Foot traffic can cause panel distortion and damage to finish. When handling painted steel, take care to prevent scratching or material abrasion. Wear clean gloves at all times to prevent a reaction from salts found on bare skin.

Normally, individual panels can be handled by people placed 6' to 8' along panel length. Have enough people to carefully handle steel sheeting to avoid any bending or damage to sheets. Dragging panels across one another will unnecessarily increase scratching risk.



Carry individual panels vertical to ground by grasping panel edge (as shown in picture above). Do not carry panel horizontally to ground as this could cause panel to buckle or bend in center.

Product Differences

What's the difference between installing wood and steel exterior products?

Temperature impact.

While wood shrinks and swells to some extent, steel expands and contracts far more as temperatures swing between hot and cold.