



ESSAR STEEL INDIA LIMITED

PUNE, FACILITY

1.STORAGE AND INSTALLATION

Steps to protect precoated metal sheets against moisture before installation are important to prevent rusting (oxidation) of the metal substrate. When metal sheets, which are stacked closely together or coil material, are exposed to moisture and heat, oxidation or rusting of the metal substrate can begin. On galvanized steel substrates, the normal sacrificial reaction of the zinc coating will occur, forming a white powder. This type of oxidation can occur beneath the paint film.

Take the following steps to control oxidation damage during storage:

1. Minimize exterior storage time at the job site whenever possible.
2. Position cover panel and slanted bundles of metal sheets to insure proper drainage of rainwater or condensed water vapor. Eliminate sagging when moisture could collect and pool. Remove outer wrapping to prevent moisture from condensing in panel bundles. \
3. Don't use moisture-trapping plastic tarpaulins to cover panels or coils. 4. Reduce temperature build-up by protecting bundles or coils from direct sunlight exposure. Proper handling and stacking during transit can help prevent abrasion damage. A common cause of abrasion damage, which can easily be avoided, is the dragging of whole sheets, edges or corners of metal panels against other panels during installation. If both the paint and galvanized coating are cut through, red rusting will be retarded by the sacrificial action of the zinc coating, but enough damage to the surface appearance can still occur to make a touch-up operation necessary.

Improper cutting and drilling of precoated metal sheets can also cause unsightly rust spotting. Hot chips -- from drilling, saws or cutting discs -- can get embedded in the paint finish and create premature rusting, making it seem that the surfaces are corroding. Chips from adjacent steel work can embed in the paint surface of unprotected metal sheets nearby. Eliminate this problem by shearing whenever possible. Protect the paint surface temporarily with a plastic cover when saws, drills or cutting disks are in use around it. Turning over prepainted sheets while cutting them so that chips will fall on the inside surface also helps. Workers should take care to avoid stepping on or exerting pressure against any steel chips which could embed the chips in the paint film. Immediately brush steel chips off the paint surface, using a stiff fiber brush. If they've already become embedded, dislodge them by mechanical means. Installed sheets should never be placed in contact with soil and soil should never be pushed against installed sheets for final grading. All grease, oil, dirt, fingerprints or any other contaminants should be removed after installation to ensure proper service life from the paint film.

2.CLEANING COATED SURFACE

Although Metacolor polyester factory-applied finishes are extremely durable, a periodic cleaning to remove build-ups of resins and other residue is a good idea to extend coating life. Simple washing with plain water using hoses or pressure spray equipment is usually adequate. When heavy deposits of dirt or other contaminants dull surfaces, a heavy-duty dry powdered laundry detergent (such as Tide /Wheel) mixed 1/3 cup with water may be used.

A long-handled soft bristle brush will make cleaning easier. Following cleaning operation with a clear water rinse. In areas subject to high humidity levels, mildew can occur. Metacolor Precoated Polyester Finishes are inherently mildew-resistant; dirt and spore deposits can permit mildew growth to occur. The following solution is recommended to remove mildew when necessary:

- 1/3 cup dry powdered laundry detergent (such as Tide®)
- 2/3-cup tri-sodium phosphate or TSP (such as Soilax®)
- 1 qt sodium hypochlorite 5% solution (such as Clorox®)
- 3 qts water

Avoid strong solvent and abrasive-type cleaners. Remove caulk compounds, oil, grease, tars, wax and similar substances by wiping with a cloth soaked in mineral spirits. Wipe only contaminated areas; follow with detergent cleaning and rinse thoroughly.