



Rust Spots in Finished Plaster

From time to time you may experience a spotting of the stucco through the paint in the form of rust. There can be several causes for this phenomenon including the sand source, shipping, the water source or an external debris source on the plastered wall prior to painting.

In the case of the sand source, most stucco is mixed onsite with bulk sand. While this sand is washed and separated by aggregate size; it cannot be fully swept of all impurities. Here in Florida, we generally have good clean sands but, at times, we run into iron deposits. These iron deposits will rust when aggravated by the caustic stucco cement, water and air. It is a fairly rare occurrence, but it does happen. These are natural deposits and there is no way to remove all even with extensive washing and drying of the sand. This is an extremely costly proposition not warranted due to the rarity of the occurrence.

Water can also be the carrier of iron or steel deposits. I once had a project that was being served by an old water tanker truck. The water being delivered was orange in color and full of tiny flecks of steel. Those flecks rusted and reflected through on almost every house until I was called to search for the source. These same steel flecks can also come from the mixer if it is old and in rundown condition.

There have been instances of contamination from the truck used to ship the sand from the source to the supplier or from the supplier to the jobsite. This is very rare today as almost all sand mines require trucks to be washed out completely prior to loading if they've hauled anything other than sand on their previous load.

There also occurs, from time to time, a contamination of the wall after plastering. This actually happens quite frequently and results from high wind-drift or splattering; though not so commonly with an iron contaminate.

Spotting is indicative of iron flecks or airborne site debris. Simply having iron heavy water tends to leave the entire area stained as if a groundwater sprinkler were soaking the wall daily.

What can you do? In the case of flecks in the sand, the rust stain will penetrate deep into the plaster coat. First, dig out the fleck and, if necessary, patch the small holes remaining. Wash out the rust spot with an iron specific stain remover such as Iron-Out. Sometimes, a skim coat over the top may be required prior to repainting. Apply a good primer/sealer coat and repaint with two coats to the manufacturers' recommended thickness. Remember, that for iron to rust, it must have oxygen which it gets from the air or from water. Therefore, the best method of prevention of recurrence is to eliminate one or both of those two catalysts.

G. Michael Starks CGC, CDT, CCPR, LEED AP
Specifications Representative