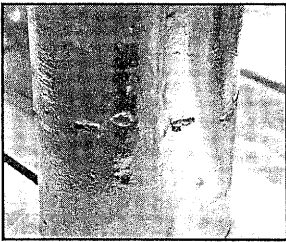


# ASK DR. GALV

EVERY ONCE IN A WHILE I FIND A SPOT THAT HASN'T BEEN GALVANIZED AND I NEED TO TOUCH IT UP. WHAT DO I USE TO MAKE THE REPAIR AND HOW THICK DOES THE REPAIR NEED TO BE?

The simple answer to this question is to refer to Specification ASTM A 780 and follow the process detailed in this specification. BUT we need to examine this answer a little more closely. The specification has recently been updated and reissued with a 2000 year revision date. There are some aspects of the specification that are still being examined, especially the zinc metallizing section. This May, the ASTM subcommittee will be meeting in Phoenix and one of its main topics will be the updating of A 780 metallizing. There are still several issues with A 780 that have not been discussed or



resolved.

Dr. Galv will now get on his soapbox for a lecture about touch-up and repair.

"The whole idea of repairing a small spot on a large galvanized article is that by using A 780 cri-

teria, you will produce a repair that will last as long as the rest of the coating. This cannot happen if you don't follow all of the requirements of A 780. I have seen many galvanizing shops where the area to be repaired is cleaned, then a couple of shots of zinc-rich paint are sprayed onto the bare area, and then the part is shipped. It may look good to the naked eye but is the coating thick enough to meet the minimum requirements of A 780? If it is metallized, is the bare area rough enough for the metallized zinc to adhere to the part in all conditions? If it is solder-coated, is the solder thickness above the minimum? You must always remember that even if it looks good, it must meet A 780 if it is to last as long as the rest of the zinc coating. If we have repair spots failing in the field, the whole industry suffers a black eye."

There are some aspects of this that are not well defined in A 780. The minimum thickness for the repair is specified in ASTM A 123 but is not specified in either A 767 or A 153. The requirements in A 780 state that the repair thickness shall be as agreed upon between the

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contracting parties. Do you often have this agreement in place before you do a repair? There are no instructions on sampling or measurement accuracy in A 780. This means that one measurement that is below the minimum required thickness could cause the whole piece to be rejected. Do you measure your repair areas on a regular basis to see if you are meeting the required minimum thickness? There are no rejection criteria or rework instructions in the specification A 780. This means that if the customer measures a reworked area and finds that it does not meet the minimum specified thickness, s/he could reject the piece entirely. This does not seem very practical, but I'm sure we all know of galvanizing customers who don't act very practical at times.

Have you ever been driving down the road and happened to notice a galvanizing job that looks like it contracted the measles? You say to yourself that some galvanizer didn't do a very good job on touch-up and repair. BUT



what does a specifier or engineer say when s/he sees a job like that? S/he probably says that galvanizing isn't very attractive so I'll use paint for my job because it gives a better appearance. Sometimes this type of impression stays with the person for a very long time. We are still hearing comments about galvanized rebar based on impressions gathered from work done in the early 1970s where the pieces were all stuck together in one big mass of galvanized bars. These types of impressions are very hard to overcome. The secret is to do the job correctly before it gets put into the field.

The ASTM subcommittee meeting in Phoenix is open to all galvanizers. So, come and help review and revise ASTM A 780 so that it meets the original intention of providing a repair process that guarantees the repair area will last as long as the rest of the coating. The meeting will be at the Hyatt Regency Phoenix at Civic Plaza on Monday, May 7, from 3:00 to 5:00 p.m.