Standards Topics



Allen W. Grobin, Jr., AESF's Manager for ISO/TC 107 Secretariat President, Grobin Associates, Inc. 187 Noxon Road Poughkeepsie, NY 12603 914/485-8542 • FAX: 914/471-5980 e-mail: grobin@vnet.ibm.com

The "Right" Question

he various columns I have written in this Journal have evoked their share of letters from readers who wished to further discuss, comment or disagree with some of the issues I have raised. Others sought additional information. Occasionally, a reader will comment on an issue that has broad implications and warrants discussion in this forum, such as the request from Jim Sutherland of the Acadian Group, Coatings Div., Mississauga, Ontario, Canada. He asked for clarification of a statement I made in the January 1997 column. Not only does his request have broad interest, it asks the right question on a subject that unfortunately has become, through misunderstanding and interpretation, controversial.

Jim writes concerning ASTM B 850-94: "You made the statement that this standard did not apply to fasteners. I had been under the impression that Section 6.3 of the standard applied to fasteners, because it mentions 'if threads or sharp notches exist.' My understanding is that this standard requires any threaded fastener to be baked for 23 hours, per section 6.3. If this is erroneous, I would appreciate a clarification of this point."

Comments vs. Interpretations Before I can answer, I need to make it absolutely clear that my comments cannot be taken as an official ASTM position or interpretation of the standard. Particularly so, because I am chairman of the ASTM B 08 section that wrote the document, and also chairman of the entire B 08 Committee on Metallic and Inorganic Coatings. Any interpretation of an ASTM standard must be prepared by a task group of the responsible subcommittee and then voted on, first in the subcommittee with jurisdiction and then in the main committee of jurisdiction. Interpretations are rarely used. Usually, if an interpretation of a point is required, the particular sentence or paragraph is rewritten to be more explicit. At times, clarifying notes are also added.

Now, to answer Jim's letter, I can state unequivocally—as one of two principal authors of ASTM Standard B 849 and B 850—that the standard was written to apply to metallic-coated articles (and related finishes) within the scope of the B 08 committee, as well as the ISO/TC 107 committee. Excluded from the scope of B 08 is sheet, wire and mill products on steel.

Threaded fasteners have always been outside the scope of B 08. The coating requirements for these fasteners have been traditionally handled in the A 05 committee and, more recently, in the F 16 committee. The only involvement of the B 08 committee with threaded fasteners is by reference to B 08 coating standards or by specific additions to the coating standards requested by the F 16 committee. Committee B 08 members do, however, comment and vote on any metallic coating requirements specified in other ASTM committees that appear to be unrealistic, difficult or impossible to produce without "heroic" efforts. This is a right of all ASTM members and any affected party.

I have attended the F 16 meetings for the last 10 years as the liaison between B 08 and F 16. I discussed the B 08 draft standards that eventually were issued as B 849 and B 850 at these meetings, and repeatedly requested input from F 16 to those standards. No input was ever received. Some members of F 16 have volunteered that the fasteners they manufacture do not suffer from hydrogen embrittlement. With the lack of interest on the part of the F 16 Fastener Committee, the B 08 committee elected not to include any stress relief or embrittlement relief treatment classes for threaded fasteners. In doing

so, Dr. G. Paul Ray, the other principal author of B 849 and B 850, and I made certain that there was not a single mention of "threaded fasteners."

Traditionally, the B 08 committee has referred to the metallic coated items within our scope as "coated articles." Whenever we needed to refer to metallic coated threaded fasteners in B 08 coating standards, we identified them as just that—metallic coated threaded fasteners. The need to reference them was the result of requests from the F 16 committee.

Each treatment class in B 849 and B 850 is either taken from an existing ASTM, ISO, U.S. Military Standard, or from actual part drawing call-outs submitted to members of the National Association of Metal Finishers. In the case of Section 6.3 and Class ER-17 or B 850, the requirements were written around hardened replacement teeth of heavy earth-moving equipment that were locked in place by engagement with segmented acme-type threads. And they only become requirements when the purchaser specifies them by class.

There is, incidentally, a wide variety of articles that have threads as part of their structure, but are not threaded fasteners. Among them are tools (metal or wood-working clamps, metal vises, hack-saw tension clamps, drill-chuck adapters, taps, dies, leveling pads, house and automobile jacks) and hardware items (hand-grenade bodies, artillery cannon breach mechanisms, rifles, spring tension adjusters, microscope bodies, lens holders, missile and aerial bomb-arming mechanisms), etc.

It is evident from Jim's letter that these standards could benefit from some additional word-smithing. I will have the B 08 committee start on this. If anyone has suggestions, we would be happy to hear them. Let me end with a special thanks to Jim. Letters such as his help make for better standards. PESF