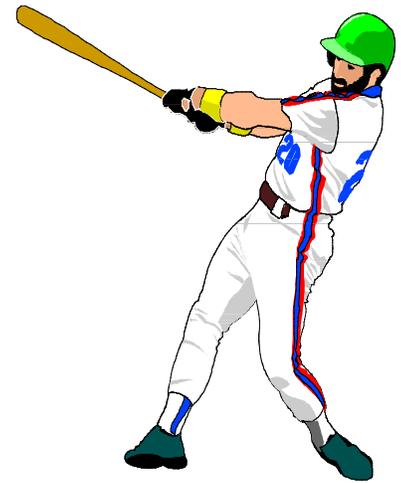




Hit A Homer With The Penetrant Professor from **Met-L-Chek®**



© 2009

Met-L-Chek®

APPLYING NON AQUEOUS DEVELOPER

Most use of non aqueous developer is from aerosol spray cans, but not all of it is, because some users purchase bulk developer and spray it with a paint sprayer. But there are some simple precautions that assure that the developer will be properly applied. The developer consists of solid particles that are suspended in, usually, an alcohol carrier. The carrier provides the means of getting the particles on the surface of the part to be inspected, and also assists in drawing the penetrant from the flaws. The ratio of the solid particles to the alcohol carrier has been carefully calculated for the

proper coat of developer on the part.

For aerosol spray cans, the instructions are simple. Before spraying, you must shake the can to resuspend the particles, which settle to the bottom of the can when it is not in use. We think that most folks understand this, because using aerosol cans of paint requires the same practice. But, one never knows what may seem obvious to one person may not seem obvious at all to another person. A long time ago, our aerosol cans had the words "Shake before using" in eleven different locations on the label. Really, eleven! Yet sometimes users asked us why the developer sprayed in peculiar ways. The answer was always the same – they had not shaken the can.

Bulk developer users have the same problem, but since they use paint spraying equipment, the method of stirring and resuspending the developer is different. The pot that holds the bulk developer must have a stirrer in it that will completely mix the developer before it is sprayed and during spraying. If the pot sits overnight and is turned off during that time, you can expect that the developer particles will settle to the bottom of the pot. If the agitation is not sufficient to properly mix the developer, the sprayer suction tube will suck up the settled developer, and it will spray in gobs of thick goo. If this happens, it is very clear evidence that the developer is not thoroughly mixed. Of course, the developer that is put into the pot must also be well mixed. This is usually easily done by shaking the gallon or rolling the five gallon pail that contains the developer. But the important point is that in order for the developer to work properly, it must be mixed properly. Attention to this detail will assure proper inspection.



Met-L-Chek Company, 1639 Euclid Street, Santa Monica, California, 90404, U.S.A.

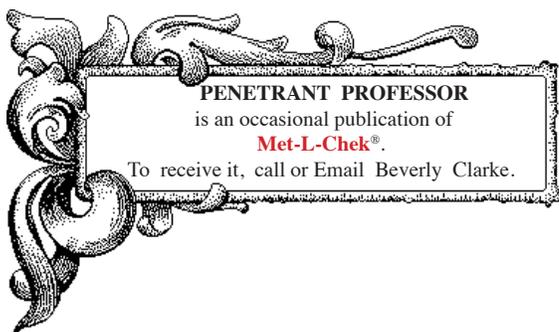
Phone: 310-450-1111 Fax 310-452-4046 Email: info@met-l-chek.com Web: www.met-l-chek.com

Sept 2009

MEETINGS OF NOTE

We are always pleased to remind our readers about meetings that are coming up. The **ATA NDT Forum** will hold its annual meeting during the period from **September 21st to September 25th**. One of the featured talks will be a synopsis of the work that has been done by **Iowa State University**. Their research has provided lot of detailed information about subjects such as the different efficiencies of developer application, the UV fade of fluorescent penetrant indications, etc. The meeting will take place in **Atlanta**, and will feature a tour of **Delta Airlines** NDT facility. In conjunction with that meeting, **SAE AMS Committee K** will meet.

Then the Fall meeting of **ASNT** will be held this year in **Columbus, Ohio** from **October 19 to 23**. For those who miss the presentation by **Iowa State University** at the **ATA** meeting, it will be repeated at the **ASNT** meeting.



Flags of the month
Grambling State University
Grambling, Louisiana
(home of the Tigers)

METHODS A, B, or C?

In the very old days, **Met-L-Chek®** offered visible penetrant aerosol can kits containing three cans, and which could be used in either **Method A**, **Method B**, or **Method C**. This was accomplished by having a can of **VP-30** visible water washable penetrant, a can of **E-50** emulsifier, and a can of **D-70** developer. **Method A** simply used the penetrant and the developer. **Method B** used the penetrant, the emulsifier and the developer, and was advised in the literature that the use of the emulsifier, sprayed onto the penetrant, was helpful in reducing the background on rough castings. **Method C** used the same products, but the **E-50** was used as a solvent remover by dampening a cloth and wiping the part. More sophistication is available today, but there are still some users who use **E-50** as a solvent remover.

We do not know if they also use it as an emulsifier, but it is just possible that this practice is a hold over from yesteryear. Some ideas die hard



VOTE!!

We recently reported that there is a movement in ASTM Committee **E-07** to amend **ASTM E-1417** so that it is specifically an aerospace document. This amended specification would be aligned with present **NADCAP** requirements. The wisdom of doing this is presently being debated. On the one hand, it would eliminate any present differences between **NADCAP** and **ASTM E-1417** requirements, which might please the aerospace industry. On the other hand, it would leave non aerospace users without the specification document that they presently use. It has been suggested that **ASTM E-165** could be used by these non aerospace companies, but this option has yet to be examined closely to see if it actually would be a viable substitute for the present **E-1417**. We believe that a "rush to judgment" should be avoided, and that the proposal be looked at very carefully. At this moment, the proposal to change **ASTM E-1417** is being balloted. If you are a voting member, we urge you to cast your vote. If you are not a voting member, we urge you to lobby voting members to cast a vote. This is a serious issue, and it makes better sense to address it now than to later complain about what is happening.

The Penetrant Professor