TABER INDUSTRIES
AS9100B & ISO 9001:2008 CERTIFIED

Memo

To: Dr. Dümmler – MPA NRW

From: Alan Jaenecke

CC: IGPG Round Robin Participants

Date: July 19, 2011

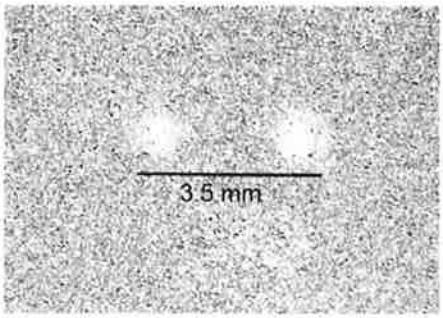
Re: Test Data Variation for MPA

Dr. Dümmler,

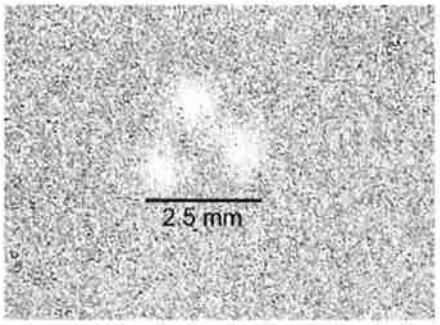
Taber's quality department has confirmed the wheel set used for the IGPG round robin (from lot DD17D2) has an anomaly that is likely responsible for the higher than expected abrasion values.

A visual inspection of the suspect wheels revealed small discolored areas on the left wheel running surface. Five (5) small "dots", ranging in size from 0.7mm – 1.0mm, were discovered grouped together. After refacing the wheels with an ST-11 refacing stone, we confirmed the anomalies are embedded in the binder material, and are likely foreign debris or aluminum oxide grain particles that were compacted and "clumped together". The end result was an increase in haze values.

Genuine TABER



Anomalies observed in left hand CS-10F abrading wheel (lot # DD17D2)



Anomalies observed in left hand CS-10F abrading wheel (lot # DD17D2)

Never having seen this, I am not certain what caused this phenomenon but have two plausible explanations. The first involves foreign debris that was mixed into the abrasive grit at our supplier's facility. The process of crushing and grading aluminum oxide is tightly controlled to prevent oversized particles from being mixed in. However, it is possible that debris was inadvertently transferred by a worker after the crushing process (e.g. grain particles may have been adhered to clothing or gloves). Taber has extremely stringent incoming inspection requirements to ensure the grain meets Taber's requirements for size and shape, and has notified our supplier regarding this issue.

Another plausible explanation involves the size of the container used to store the abrasive grain. In an attempt to minimize handling, Taber utilized a larger storage container for a brief period of time. It is thought that the additional volume of material could have compacted the abrasive grit, resulting in clumping. Although our manufacturing process normally creates uniform distribution of the abrasive grain and binder, these clumps did not break apart resulting in the spots that could be higher concentration of the grit. The timing of this corresponds to the lot's production. Note, soon after the larger container "improvement" was implemented, we quickly recognized it was more difficult to process the grain and have since returned to the smaller containers.

I am confident the unusual values reported for the PC and PMMA samples was not caused by the test procedure that you submitted.