

Template for comments and project leader observations

Date: 7 May 2009

Document: Commentary on Comments received about proposed changes for OP1.002

1	2	(3)	4	5	(6)	(7)
IN <sup>1</sup>	Clause No./ Subclause No./ Annex (e.g., 3.1)	Paragraph/ Figure/Table/ Note (e.g., Table 1)	Type of comment <sup>2</sup>	Comment (justification of change) by the project participant	Proposed change by the project participant	Project leader observations on each comment submitted
GB	3.5.3		te	Simplify the wording to more closely match the existing wording in MIL-C-48497A.	The scratch letter defines the largest width of the scratch in accordance with Table 1.	I thought we are trying to disconnect the use of letters to designate a specific width. I thought we want to emphasize that letters represent ranges with an upper and lower boundary.
GB	3.5.3	Table 1	te	Binning scratches into classes is appropriate, and is the only practical way to evaluate them visually without magnification. However, when/if they are being evaluated with magnification I think we need the option to allow the actual measured largest width of each scratch to be used in the calculations.		YES
GB	3.5.3	Table 1, col. 3	te	This is a serious step backward from the prior version with "disregard" numbers in microns. It is confusing and not what people who perform inspections want to know.	Change column 3 back to "disregard" numbers in microns.	The old language requires twisted explanations about how "disregard" doesn't always mean ignore.
DA	3.5.3		te	How are you going to determine the widest portion of the scratch if you are viewing it without magnification?		Is the entire concept of the dimensional specification meaningless for visual inspection?
DA	3.5.3	Table 1, col. 3, row 3	te	Error in accumulation	Change "Classes A2 and A" to "A2.5 and A."	YES
GB	3.5.4	Table 2, col. 3	te	This is a serious step backward from the prior version with "disregard" numbers in millimeters. It is confusing and not what people who perform inspections want to know.	Change column 3 back to "disregard" numbers in millimeters.	The old language requires twisted explanations about how "disregard" doesn't always mean ignore.
GB	3.5.3, 3.5.4	Tables 1, 2	ed	Format	Center the information in the columns, use $\mu\text{m}$ instead of um.	YES
FD	3.5.5.1		te	Based on the information given the designation is wrong	Change "D-D" to "E-D."	YES

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NOTE Columns 1, 2, 4 and 5 are mandatory

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GB DA	3.5.5.2		te	This example is fundamentally flawed. You are essentially saying "If the widest scratch permitted on a surface is 15 microns then the widest scratch permitted on the surface is 10 microns."	If the user really can allow 15 micron wide scratches but not 20 micron wide scratches, perhaps that should be stated explicitly on the drawing without reference to this standard.  An alternate example might be "If the widest permissible scratch is a Class C, a 15 micron wide scratch is considered a Class C." However an example is unnecessary, the meaning of the ranges in the table is clear.	The very concept of binning, which has been used for 60 years, forces the designer and the inspector to over-estimate the gravity of features that fall into the lower portions of a bin. If the only purpose of the binning system is to serve as a symbolic reference to the maximum boundary of the bin, then I think the entire concept of binning is rather silly. Just dump the bins and designate the specific upper boundary that concerns the designer.  Examples are used to highlight the obvious as well as to explain the subtle. Simple examples demonstrate clearly how the meaning of the text is to be applied. The three examples were constructed to demonstrate notation, not to restate the meaning of the table. They were constructed to highlight three broad categories of imperfections: large, intermediate, and tiny.

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GB	3.6		ed	"When imperfections appear that might trigger the rejection" seems awkward. "Controlled imperfections" sounds like "deliberately applied imperfections."	Change to "Imperfections larger than the "disregard" size must be evaluated in terms of quantity and length. This section defines how imperfections are to be accumulated during inspection."	If I am to "disregard" an imperfection, why am I to include it during accumulation? Sounds like contradictory language. "Control" is somewhat vague in a colloquial sense; however, it is commonly used in QA and QC to reference items of concern (See, for example, the language used to explain GD&T).
GB	3.6.1		te	It is not clear that S is the <i>maximum allowed</i> class. It also seems the rest of the wording of the existing 3.6.1 is being reworded just for the sake of rewording it. It is no clearer than it was, it is less clear.	"...the combined length of the scratches falling within the maximum allowable scratch Class S shall not exceed...Where: N is the number of scratches in maximum allowable scratch Class S...."	If a surface is designated C-D, are we not supposed to accumulate the scratches in both Class B and C? In other words, don't we accumulate in the maximum allowed class AND in one class below? The change in language was intended to resolve this ambiguity.
GB	3.6.1, 3.6.2		te	Apparently "designated scratch" is being used instead of and to mean "maximum allowable scratch." We haven't explained this anywhere.	Go back to the commonly used and understood term "maximum allowable scratch," or "maximum allowable scratch class."	"Indicated scratch" might be better than "designated scratch". The change in language in these sections is an attempt to link with the language used in the earlier sections of the document.
DA	3.6.2	equations	te	The revised equations are ambiguous.	Change the summation from $i=1$ to $n$ , where $n$ is the number of scratches to be considered for accumulation.	Terms MAX and MIN originally intended to reference the maximum and minimum scratch classes need for the calculation.
TT	3.6.2	equations	te	$S_{max}$ needs to be defined.		YES

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GB	3.6.2	equations	te	The alternate equations do perhaps make it a little easier to understand, in that the units on both side of the inequality are length (inches, mm, etc.). In the original equations the units on both side of the inequality <i>may be</i> width (microns) or may they <i>may be</i> dimensionless (scratch # visibility). The equations should only be offered as an alternate, not a replacement. There is too much history, prior learning and training material surrounding them to delete them	Offer the equations as alternate ways to express the same requirements, or delete them for having marginal value.	It is indeed a problem when a traditional explanation, or in this case, a traditional equation, is murky.
GB	3.7.2.4 (new)			If microscope inspection and evaluation of scratches and digs is being performed, buyer and seller should be allowed to agree to use the actual measured dimension of each imperfection in doing the accumulations rather than binning them into classes per Table 1 and Table 2.	To be supplied.	YES
DA	(new)			The standard does not address sleeks: what they are and how to deal with them. We should provide direction.		YES

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