

Subject 2218

April 30, 2018

SUMMARY OF TOPICS

The following changes in requirements to the Standard for Safety for Impact Resistance of Prepared Roof Covering Materials, UL 2218, are being proposed for preliminary review and comment only:

1. For Preliminary Review Only: Revisions to Sections 1.1, 4.4.3, 5 and 6

COMMENTS DUE: May 14, 2018

This proposal is for review and comment only (no ballot at this time). Please note that comments on a preliminary review document will not receive a response from the proposal author through CSDS. Instead, the proposal author will be asked to review the comments and adjust the proposals and/or supporting rationale as the author determines to be appropriate. The preliminary review process is an informal mechanism that provides authors with the opportunity to refine their proposals before they advance to the next stage in UL's standards development process.

In some cases, the author of the proposals may choose to discontinue them. In this case, the author need not do anything after preliminary review has ended. Normally, the next step in the process is the more formal STP ballot and stakeholder review process. Only comments posted during the STP ballot and stakeholder review process will be provided with a response in CSDS.

UL's goal is to have no interest category comprise more than one-third of the STP membership balance. To improve the current balance for STP 2218, UL is looking for participants in the Producer, AHJ, Commercial/Industrial User, Supply Chain, Government, Testing & Standards Org. Consumer, International Delegate interest categories. Definitions for these interest categories are available on the Standards STP Internet site:

<http://ulstandards.ul.com/develop-standards/participation/interest-categories/>

If you are interested in applying for STP 2218 membership or are aware of potential candidates for this STP, please contact the STP Project Manager, griff.edwards@ul.com.

For your convenience in review, proposed additions to existing requirements are shown underlined and proposed deletions are shown ~~lined-out~~.

1. For Preliminary Review Only: Revisions to Sections 1.1, 4.4.3, 5 and 6

RATIONALE

Proposal submitted by: Greg Keeler, Owens Corning

Section 1.1 - Asphalt shingles are the most commonly tested product under this standard and can be installed on slopes as low as 16%. Furthermore, the proposed verbiage removes permissive language that increases potential variability ("normally") and changes the word "inclines" for "slopes", which is a more commonly used term in the roofing industry.

New Section 5.2 - The light source that is used can influence the accuracy of the actual ball impact and thus should be clearly spelled out. An option for lasers should be added to give labs the latitude to use such devices if they choose. The light source at Northbrook is unreliable and not very bright, and when I have suggested switching to lasers I have been told that there is no allowance in the Standard for lasers.

New Section 6.2 - The surface onto which the test assembly is placed during the test can influence the results of the test (i.e. placing the assembly onto a carriage will result in greater absorption of impact forces). Requiring the assembly to be placed directly on a flat concrete surface will result in increased repeatability and reproducibility as some test facilities may employ a carriage and some may not.

Renumbered Section 6.3 - This procedure is extraneous because the depth of the resultant depression is not one of the acceptance criteria.

PROPOSAL

1.1 This test method provides impact resistance data for the evaluation of prepared roof covering materials. For purposes of this Standard prepared roof covering materials are considered to be small units, sheets or panels designed for installation with multiple layers of such materials installed in overlapping rows normally on inclines ~~slopes of 16~~ exceeding 25 percent and greater.

1.2 ~~The~~This test evaluates the effect of impact from the steel ball at locations on the assembly selected to be most vulnerable, such as (but not limited to) edges, corners, unsupported sections and joints.

4.4.3 For roof covering materials with factory-applied adhesives, the completed test assemblies are to be placed in a conditioning cell and maintained at a temperature of 57 – 60°C (135 – 140°F) for a continuous period of 16 hours. To avoid damage when examining tested samples, prevent the self-seal adhesive from adhering by covering it with masking tape or other similar type material. After conditioning, the test assemblies are to be allowed to cool to room temperature. Care is to be taken to avoid disturbing shingle tabs or causing any twisting or distortion of the test panels in handling.

4.4.3 revised May 1, 2012

5 Test Apparatus

5.1 The test apparatus is to consist of lengths of 2-in (50.8 mm) diameter (ID) and 3-in (76.2 mm) diameter (ID) schedule 40 PVC pipe secured vertically over the target specimen. Drop positions are to be prepared to provide for the release of steel balls down the centerline of the pipe at the drop heights specified for each size (diameter) of steel ball. The 2-in diameter pipe is to be used for the 1.25 and 1.50 in steel balls. The 3-in diameter pipe is to be used for the 1.75 and 2.00 in steel balls. See Figure 5.1.

Exception: A drop method other than that specified in Figure 5.1 that assures consistent drops using the specified steel balls at the specified drop heights meets these drop method requirements.