



Suggested Retest and Validation Dates for Suitability Reports

This article explains why ASET Services considers suitability reports valid for only 7 years. Reasons range from changes in the definitions of grading rules to changes to the components of items used within the sports surface system. Changes in the raw materials of wood based systems and in the formulations of various components of synthetic materials may result in changes in performance.

ASET Services started including 'valid through' dates on all suitability reports in the summer of 2003. In the summer of 2009, that wording was changed to 'Suggested Retest Date'. ASET Services chose to suggest that products destined for the North American market be retested for seven years. The sections that follow will address some of the reasons why this suggestion was made and the criteria used to establish a validity period for suitability reports.

Such a validation date, or suggested retest date is not common in the industry. The primary reason for this is that ASET Services is the first testing company that has its roots in the North American market. All of the other testing labs and agencies are either based in Europe or were started from European Companies. There are significant differences between the North American and European sports surface markets. Many of these differences would make such a validation period or suggested retest date unnecessary in Europe.

First and foremost the difference is in on-going evaluations of sports surfaces. Europe has a long history and an ongoing policy of testing a high percentage of (if not all) installations after the product has been installed. This ongoing program provides the manufacturer with performance feedback regarding their system and allows them to use the effects of performance changes to evaluate the cause of these performance changes in their systems. Europe also has a long history and ongoing policy of holding manufacturers financially accountable for failure to delivery agreed upon performance levels.

At this time North America has no policy of testing even a small percentage of installations. Owners and architects take the performance of their particular installation for granted based on the reputation of the manufacturer and installer. The current North American landscape neither provides manufacturers with the information to know that their performance has drifted from the original test or with the motivation (financial) to rectify such drifts so that future installations deliver the agreed and advertised performance levels.

Having taken some time and effort to explain why such suggested retesting is advisable for the North American Market, this article will now explore some of the more common manufacturing issues that can result in performance changes.

1. Changes in Grading Rules

The quality of raw materials used to construct sports surfaces is constantly changing. While the names of various material grades often go unchanged, the definitions of grading rules names are often changed to reflect the quality of the raw materials used during production. An example of this is the MFMA (Maple Flooring Manufacturers Association) grade rules for random length tongue and groove strip flooring. Sometime between 1997 and 2001, the MFMA slightly modified it's definitions for random length strip flooring.

For the purpose of brevity this article will examine the amount of short material allowed in nested bundles in 1997[a] and 2001[b]. The changes in this table appear to be minimal, but these reflect only a portion of the changes made throughout the new grading rules. It is impossible to accurately predict the effect of similar changes without testing samples constructed with material meeting the new grading rules.

Grade	% Less than 15" (1997)	% Less than 15" (2001)
First	8	10
Second and Better	12	15
Third and Better	40	42

A 'second grade' random length strip maple sports surface system tested prior to this grading rule change could have a measurably different performance than 'second grade' random length strip maple sports surface system tested after the grading rule change, due to changes in the grading rules.

This does not imply that grading rules changes are isolated to the playing surface. Similar environmental and economical pressures exist within the sleeper and subfloor markets. This article has chosen to focus on on such grading rule change for the purposes of illustration.

2. Changes in Materials

Some products within a sports surface system are defined by grading rules based on their appearance (ex. Maple), other products may be defined by grading rules based on their performance (ex: plywood). Plywood and OSB (oriented strand board) panels are an example of products that use performance grading. Material changes are common for resilient pads used in area and combination elastic systems.

Plywood and OSB panels are rated by their structural strength as evaluated through a variety of standardized tests[c]. However, the raw material properties of these products are a function of not only the wood materials but also the glue compounds used. As an example a manufacturer might be able to offset any strength decreases due to the quality of the wood raw materials through changes in the structural properties of the glue.

Synthetic companies typically realize that even minor compound modifications result in a new product and thus tend not to have the new product evaluated. However, a synthetic material could be under pressure to reduce certain chemicals or compounds. Today, Mercury is an example of an element facing this type of environmental pressure. Reducing or eliminating an offending component in a synthetic system may require the addition of new components in order to maintain flexibility and strength values considered key by the manufacturer.

Evaluating the structural properties of products is a key tool for manufacturers. The tests are often simple, effective and relatively inexpensive. However, the fact that a product's performance remains unchanged under simple test settings does not necessarily indicate that the sports related performance will not change in the finished sports surface, of which that product is only a component.

3. Process Changes

Simple changes in the manufacturing or installation processes may also result in small changes to the performance of the sports surface system.

- Example: A strip flooring producer makes a change in the manufacturing process or equipment to reduce production costs. A side effect of this change could be tighter or looser fits between the tongue and groove and this could change the performance of the system.

4. Duration Between Retests

First, the reason for the change in philosophy from issuing reports with a 'validation period' to issuing them with a 'Suggested Retest Date' is in order. After careful consideration, ASET decided that it does not have the authority within the industry to establish such a validation period. We feel that we do have the authority to suggest when products be retested in the laboratory. The suggested retest date provides manufacturers with flexibility of scheduling their test dates.

Much thought was given to selecting a duration between test dates of performance certificates issued by ASET Services. The two key factors that were considered during this process were:

- Ensuring purchasers of new sports floors that the performance values were up to date
- Selecting a duration that did not place undue financial burdens on manufacturers that would have to be passed on to customers

After considering the issue for some time, it was concluded that a validity duration of seven years should provide adequate protection to purchasers and adequate value to manufacturers.

Customers can be secure in knowing that the performance levels in the suitability certificates, or report, issued by

ASET Services are relevant to the performance of their newly purchased floor. Likewise, manufacturers have seven years to decide if the performance of a sports surface should be re-evaluated to keep a current suitability report.

5. What Re-Tested Floor Reports Will Look Like

We are just now entering the period when ASET's first reports should start to be retested. As these products are retested, test reports will indicate that these products have passed the applicable standard over a long period of time. Updated test reports will have a section titled "Legacy Performance" which will contain the performance of the system as originally tested.

Selecting such Legacy systems will provide owners with the assurance that the manufacturer's quality control programs have been in place and are actively reviewed providing advertised and agreed to performance levels over a long period of time. Manufacturers that develop a significant catalog of Legacy performance systems will be able to show a strong commitment to internal quality and the integrity of their manufacturing and supply chains.

6. References

- [a]1997: Maple Grading Rules of the MFMA (Maple Flooring Manufacturers Association)
- [b]2001: Maple Grading Rules of the MFMA (Maple Flooring Manufacturers Association)
- [c]1997: Plywood Design Specifications, APA, The Engineered Wood Association.

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