

Why Switching from 'DIN' to 'EN' Makes Sense in North America

ASET Services has decided to advise that the North American indoor sports surface market switch from using DIN-18032-2 to the newly published European Norm (EN-14904) in project specifications. This article explores the five factors that ASET Services believes to be the most persuasive reasons that make the new EN standard the logical choice within North America. This article has been developed as an educational tool for end-users, architects, and manufacturers. It's development has been in no way been funded by any manufacturer or manufacturing association.

Introduction:

Chances are that if you've been involved in the indoor sports surface market anywhere in the world you're familiar with 'DIN' performance characteristics. DIN performance values have been heavily promoted in North America for more than 20 years. They have invaded the vocabulary of the industry. Features like force reduction/shock absorption, ball rebound, vertical deflection, area indentation now dominate the marketing and sales promotion programs of nearly every manufacturer.

A new standard has been developed by the European Union. The standard was developed by the European Committee for Standardization (www.cennorm.be). This new standard is very similar to DIN-18032 part-2 now commonly used in North America.

ASET Services has decided to advise all parties involved with indoor sports surfacing in North America to switch their specifications from DIN 18032-2 to EN-14904. The later sections of this white-paper will explain the key factors that support this recondition.

Deciding Factors

The following sections outline the key factors that ASET Services would support the decision of the switch from DIN 18032-2 to EN-14904 within North America.

Factor 1: EN Creation was Multilateral

One of the most important reasons for endorsing the new EN standard of the old DIN standard is the diverse group involved in the development of the new EN standard. DIN is the national standardization body of Germany. The fact that DIN is a national standardization body means that its decisions only need to respond to culture, use, and economical conditions that exist within Germany.

In a contrast the new EN standard has been developed by a diverse group of European Union Members (29 members at the time this document was developed). The fact that more than multiple countries were involved in the development of the EN standard means that it had to be developed to accommodate a variety of cultures, uses and economical conditions.

Factor 2: EN Allows Market Adaptability

Because DIN was developed for a single market, there was no reason for the standard to be developed such that it could adapt to a variety of markets or uses.

The end result is that while the force reduction and vertical deflection criteria are assigned minimum performance levels under DIN, the EN standard provides for a wide range of performance values and classifications. The fact that the EN places floor systems into classes may allow various sections of the market (basketball, volleyball, etc.) to select a system that more suits their athletic movements and performance needs.

Factor 3: EN Is More Consistent

Do you know that there are currently 2 different versions of DIN used by manufacturers to evaluate sports surfaces? Each of these different versions can produce slightly different results. While the results are usually similar, the different versions can result in slightly different values.

There is only one version of the new EN standard. All performance testing uses exactly the same test and evaluation methods. Specifying the new EN standard will ensure that all of products submitted to your project have been tested under similar conditions and methods.

Factor 4: EN 14904 is a living standard

The ratification and publication of the new EN standard means that both versions of DIN 18032-2 are considered dead within Europe. European specifications and testing will be quickly transferred over to EN 14904 testing and results (change is slated for 2008).

There are not yet any performance standards that would be required in North America, therefore testing within North America is completely optional. The market can still decide to stick with DIN or transition to the EN.

Maintaining the status quo and using DIN will mean that the market will be using a standard that is dead. Migrating to the new EN will ensure that the market is using a test method that is living.

When we call the new EN standard living, we mean that researchers and manufacturers will constantly be involved in making it better. A living standard is constantly re-evaluated, testing equipment and analysis methods are kept current, performance levels are adjusted. A dead standard receives no attention. It can not adjust to changing markets or market demands. A dead standard can not incorporate new scientific knowledge, or research findings.

Factor 5: EN allows improvement at every cost level

Because DIN was developed with a single pass-fail level, it was only applied in the product development of relatively high end, high performance flooring systems. ASET Services has long realized this as one of the major limitations resulting from the unilateral development of national (i.e. DIN) standards.

The European Union has member nations that span a wide range of economic conditions similar to those that exist within portions of North America. This range of member nations cultural and economical background force the development of a standard with broad applications.

One must face the reality that within North America a variety of economic situations exist. A vast number of jobs must be sold based on cost not on performance. The open nature of the results from the EN standard will allow manufacturers to use it to improve the performance offerings even on lower cost and lower performance systems if they choose.

Conclusions:

For now the sports surface performance standard best suited to North America appears to be the new European Norm EN 14904. However, it is still ASET Services' opinion that North America needs a standard of it's own.

References

1. (2001) DIN Pre-Standard 18032 Part II: Sports Halls, Halls for gymnastics, games and multi-purpose use. Part 2: Sports floors, requirements and testing.
2. (2006) NEN-EN 14904: Surfaces for Sports Areas - Indoor surfaces for multi-sports use - Specification.

Standards and Safety

At this time no study or publication has been found that links an indoor sports surface's compliance with any standard to a reduction in injuries. There are no guarantees that better performance under any form of testing will result in added safety to players or participants.

Specifiers should consider all standards an indicator of athlete comfort not an indicator of athlete safety.

This publication is provided by ASET Services, Inc. ASET Services is committed to providing engineering and testing services to the sports surfacing industry. For further information contact ASET Services through one of the following methods: