

**LABORATORY PROCEDURAL GUIDE  
FOR CERTIFYING NEWLY  
MANUFACTURED SOCCER SHIN GUARDS**

**NOCSAE DOC (ND) 091 – 03m03**

Prepared By



**NATIONAL OPERATING COMMITTEE  
ON STANDARDS FOR ATHLETIC EQUIPMENT**

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## 1 Scope

- 1.1 This procedural guide establishes recommended practices for the certification of soccer shin guards.
- 1.2 **All testing and requirements of this standard specification must be in accordance with NOCSAE DOC.090.**
- 1.3 *This recommended practice does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this recommended practice to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

## 2 Referenced Documents

- 2.1 STANDARD PERFORMANCE SPECIFICATION FOR NEWLY MANUFACTURED SOCCER SHIN GUARDS, NOCSAE DOC.090.

## 3 Test Equipment Required

- 3.1 One, flat-bottomed, conical leg anvil.
- 3.2 Guided, free-fall drop assembly.
- 3.3 Linear accelerometer with appropriate data collection system.
- 3.4 Spherical impactor.
- 3.5 Tape measure.
- 3.6 Spring balance force gauge
- 3.7 Miscellaneous hand tools.

## 4 Laboratory Environment

- 4.1 Expose shin guards to normal laboratory environment (ambient temperature) for a minimum of four hours (see section 12, NOCSAE DOC 001).

## 5 Shin Guard Preparation

- 1.1 Shin guards shall be tested complete, in the condition as offered for sale or use.
- 1.2 Shin guards used for testing must be selected in a random manner

## 6 Sample Selection

- 6.1 A statistically relevant sample must be tested.<sup>1</sup>
- 6.2 Each certifier must test an adequate and representative sample size in order to be reasonably sure that shin guards released to use, but not actually tested, will meet the requirements as set out in NOCSAE DOC.090.
- 6.3 Certifiers may be faced with processing shin guards manufactured from variable raw materials. Sample selection **must** be random yet demonstrate that raw material variability's have been accounted for.

## 7 Testing Procedure for Certification

There is no required sequencing required of the four (4) different tests that must be performed for certification; the tests may be performed in any sequence.

## 8 Reports

- 8.1 All reports must comply with Section 12, NOCSAE DOC.090.

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<sup>1</sup> For guidance on what is an acceptable sample size, interested parties can refer to Military Standard 105-E Standard Series, ISO 9000 Standard Series or ANSI/ASQL Standard Series.