

Australian Standard™

Surfaces for sports areas—Methods of test

Method 6: Determination of resistance to staining

PREFACE

This Standard was reviewed by Standards Australia committee PL-048, Sporting Surfaces to supersede AS 2983.20—1987, *Methods of test for synthetic sporting surfaces—Determination of resistance to staining*.

The Standard is republished, without technical alteration.

METHOD

1 SCOPE

This Standard sets out a method for determining the resistance to staining of a synthetic sporting surface.

2 PRINCIPLE

Test specimens taken from the sporting surface are left for 16 h in contact with a series of stains and solvents that are likely to be encountered in everyday use. Resistance to the reagents is assessed by the presence and difficulty of removal of any marks produced.

3 APPARATUS

The following apparatus is required:

- (a) Glass covers, one for each reagent, to prevent evaporation (suggested covers are small glass bottles or watch glasses).
- (b) White fluorescent light of intensity 500 to 1000 lx.

4 REAGENTS

- 4.1 Petrol.
- 4.2 Water—Distilled.
- 4.3 Ethanol.
- 4.4 Liquid detergent.
- 4.5 Tri-sodium phosphate.
- 4.6 Citric acid solution (containing 10% citric acid).
- 4.7 Coffee.
- 4.8 Wax crayon.
- 4.9 Felt tipped marking pen—Black.
- 4.10 6.6% urea (urine).
- 4.11 Shoe polish, liquid or paste.
- 4.12 Tea.
- 4.13 Lime.
- 4.14 Superphosphate.
- 4.15 Cola-based carbonated soft drink.

5 TEST SPECIMENS

Fourteen test specimens of 50 mm × 25 mm approximate size shall be used, cut from the surface under test.

6 PROCEDURE

The test shall be conducted using each of the staining reagents listed in Clause 4. Where the reagent is likely to evaporate, the test shall be conducted with the test specimen under the glass covers.

NOTE: Reagents should be kept in closed containers to avoid change in concentration.

The procedure shall be as follows:

- (a) Apply the staining reagent over one half of the length of the test specimen, i.e., approximately 25 mm.
NOTE: Application should be related to the reagent being tested, e.g., a liquid may be applied in droplet form.
- (b) At the completion of the test period of 16 h, wash the test specimen with water. In the case of waxes such as crayon or shoe polish, wash with ethyl alcohol.
- (c) 1 ± 25 h after washing, examine for staining by placing the test specimen in a horizontal position at normal table height (approximately 1 m) under overhead white fluorescent light having an intensity of 500 to 1000 lx and viewing it at an angle of approximately 90° to the surface. Avoid outside indirect light such as sunshine as such light may accentuate or minimize the stain.

The effect of the staining reagents should be assessed and reported as follows:

- (i) *Unaffected* No colour change and no appreciable change in surface texture.
- (ii) *Superficial* Stains that are easily removed by a light application of mild detergent.
- (iii) *Considerable* Stains that are not easily removed or which result in etching.