

Development of a body soil stain – summary paper for A.I.S.E. website

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In 2009 A.I.S.E. – the International Association for Soaps, Detergents and Maintenance products – has developed a Test Protocol for the performance of household laundry detergents and laundry additives.

The purpose of this protocol is to provide guidance on a minimum-quality requirements with respect to methodologies, test design and test execution for assessing the performance of detergents across Europe.

Incorporating the received feedback on the Protocol, the A.I.S.E. Detergent Test Protocol Working Group, together with the Center For Testmaterials BV and the Department of Analytical Chemistry of the University of Amsterdam, has undertaken work to develop a suitable model stain for collar soil.

The currently available (model) collar soils for detergent testing are either variable in composition, costly or less predictive.

To make the model stain suitable for use in in-wash performance tests, the new stain should meet the following requirements:

- a) composition to be similar - but more consistent - to 'real-life' soil,
- b) in-wash behavior to be similar - but less variable,
- 3) available at reasonable cost.

Using various types of chemical analyses, the composition of 'real-life' soiled collars could be characterized to a large extend.

Based on the obtained analytical data, the Center For Testmaterials created a number of model stain recipes mimicking the 'real-life' stains

The individual A.I.S.E. Working Group members subsequently tested these prototype model stains in their laboratories assessing the in-wash behavior of the prototypes versus the key performance attributes of the 'real-life' collar stains.

Re-iteration of the stain recipe(s) - following the findings from the wash test cycles - resulted in a limited number of prototype stain recipes that resembles the 'real-life' collar stain with regard to both composition and in-wash behavior.

However, for all final model stain options limitations were identified w.r.t. sensitivity, response dependency on detergent type, and soil composition. Due to these limitations no single model stain could be identified allowing for an A.I.S.E recommendation for a representative body/collar soil.

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