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confidence

Lubrizol
A Lubrizol Company

Warwick Equest Product Brochure



Since 1990, Warwick Equest has been a leading supplier of test products to the detergent and allied industries worldwide

Warwick Equest's expertise lies in the bespoke manufacturing of 'natural' consumer stains which are truly representative of consumer problematic stains. Supplying an extensive range of stained fabrics allows our customers to benchmark stain removal performance.

With wide market penetration to a variety of industry sectors, including detergent manufacturers and test institutes, we offer not only industry relevant stains but work in close collaboration with our customers to develop stains and sets that meet their defined requirements.

Not only are we focused on providing excellent customer service to ensure rapid response and cost effective supply, but we pride ourselves in being able to provide a comprehensive range of products with valuable technical guidance for the homecare sectors.

Did you know?



Warwick Equest Ltd is part of Warwick Chemicals, an international supplier of speciality chemicals that is recognised both for excellence in customer service and in product quality, and Lubrizol Advanced Materials.

As a manufacturer of performance monitors to support the evaluation and development of detergent products within the detergent industry, Warwick Equest Limited compliments both companies, with all being vital in driving innovation within the laundry and homecare industries worldwide.

Product focus

Test fabrics

Warwick Equest offers a bespoke service and can apply a wide variety of stains to a range of fabrics. All of the stains prepared use real consumer products and represent real-life washing problems relevant to the end consumer.

Stains are generally sourced on the UK market, although we also apply customer-supplied stains sourced from other countries to give a more representative test product for that market.

Stains are applied to fabrics that are either pre-washed using Warwick Equest's standard protocol or to fabrics using customer-supplied protocols. In addition, we can apply stains to customer-supplied fabrics that have been pre-washed.



Fabrics available include, Knitted or Woven Flat Cotton, Polycotton, Polyester and Terry Towelling. All fabrics can be used to prepare performance monitors or used in whiteness testing.

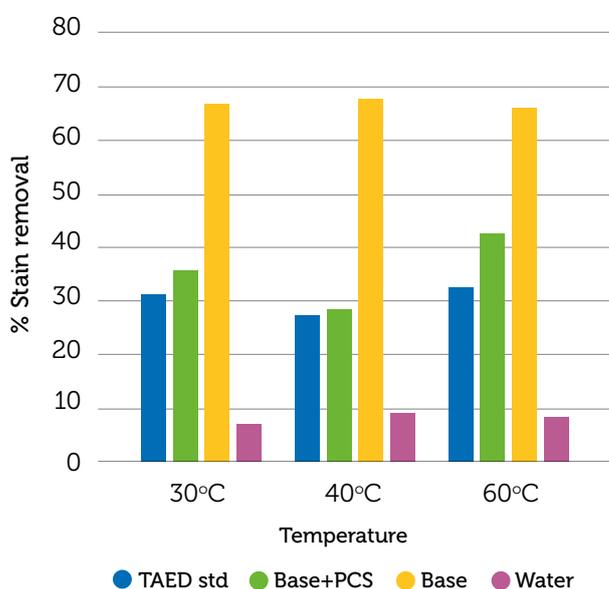
Why use natural stains?

Natural stains have the advantage of being truly representative of consumer practice. They are not fixed to fabrics artificially and do not contain additional materials such as dyes to add colour, unless requested by the customer.

The response of natural stains can differ from some standard, aged stains, as exemplified by the stain tests shown below.

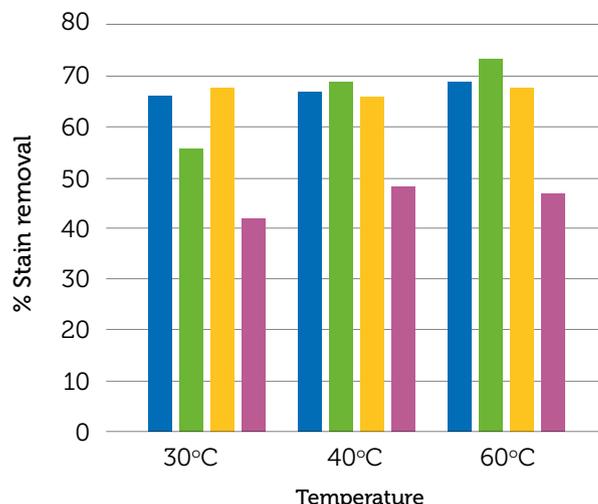
Generally, a higher level of stain removal is seen using natural stains compared with standard stains, which has application in performance testing where a lower level of fixing is required as the stain is generally more easily removed i.e. low wash temperatures or short wash cycles.

Standard technical blood stain



Standard stains, such as blood, are processed to fix them onto the fabric which can alter their nature, making them more difficult to remove than in reality.

Natural blood stain



IEC A* (g)	base detergent	85
PCS (g)		10
TAED (g)		5

Miele Machine, 40°C, 3.5kg ballast load

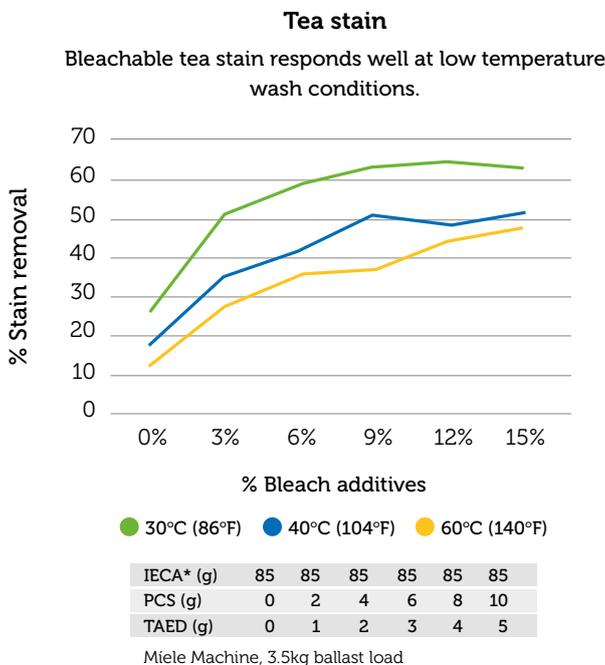
Evaluation orientated stains and recommendations

Our comprehensive range of natural consumer-relevant stains and test swatches have broad application to respond to all components within a detergent formulation, therefore accommodating various responses and appealing to a wide variety of customers assessing the performance of a detergent formulation. This includes stains that are bleach, enzyme and detergency/particulate responsive, as demonstrated in the table below:

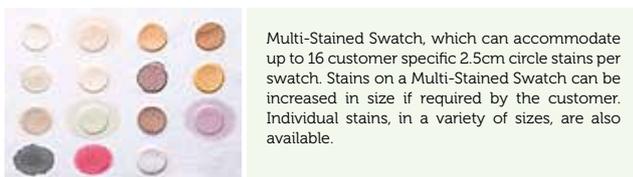
Category	Type	Soil Example
Bleach Responsive	Hydrophilic vs Hydrophobic	Coffee, Red Wine, Fruit Juices vs Curry, Tomato-based
Enzyme Responsive	Protease, Amylase, Mannanase, Pectinase and Lipase	Grass, Starch-based, Fats, Chocolate Puddings – i.e. Mousse, Ice Cream
Detergency/Particulate Responsive	Mixed Soils and Stains for General Detergency/Particulate Removal	Make-up and Lipstick, Clays, Oils – i.e. Dirty Motor/Olive/Vegetable

With Warwick Equest's focus on meeting and tailoring products to meet the needs of our customer and laundry market, target development of stains which are responsive to new technologies and conditions are key. Facilities and expertise available at Equest allow stains to be screened and studies carried out to aid with recommendations.

As wash temperatures reduce, it is important that stains respond and can be used to differentiate between formulations. At Warwick Equest, stains are designed to respond to lower temperatures, as illustrated with the stain curve below:



Therefore, our stains can be applied in different formats and sizes to suit the stain-removal performance measurement system used by our customers.



Our natural AISE stain set

Laundry performance monitors not only assist the formulator in the development and screening of detergent prototypes, but certain test products can be used to support specific product claims.

The stains used within the AISE minimum test protocol for detergent performance are commonly known as the AISE stain set and the natural stains stipulated are available from Warwick Equest. Stains are available individually or as a multi-stain monitor, in each case the stains are 5cm in diameter, and are produced on knitted cotton fabric.



Specialist products and services

With ever changing and growing industries and markets, it is important to Warwick Equest to be able to adapt and meet those trends seen and therefore the needs of our customers wherever possible. This includes not only focusing on new product development areas to aid in laundry detergent performance evaluation, but also having the facilities and controls in which to support and accommodate this.

Along with our ISO 9001 2008 accreditation, continual investment in capacity expansion, such as our laboratory facilities, and attention to Health & Safety and efficiency improvements are all targeted to ensure quality and customer satisfaction for all of our products and services.

Consumer Soiled Laundry

Presence of soil within a consumer load can influence the performance of a detergent and reduce stain removal depending on the nature and level of soil. Therefore, we offer a range of real consumer soiled goods which are representative of wash loads and available with various degrees of soiling as required by our customers.

The importance of testing under clean and soiled load conditions is demonstrated in the graph below.

The performance of the detergent and stain removal level appear greater in a clean load compared to that of a soiled load, where a consumer realistic representation of the performance of the detergent and stain removal is seen.



87% IECA* + 10% PCS + 3% ATC, Miele Machine, 40°C

Bleach system affected by the effect of catalase in a naturally soiled load. Therefore level of stain removal is reduced compared to a clean load.

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To discuss any of these topics or specific projects further, please contact us on:

+44 (0)1207 262 140

fax: **+44 (0)1207 262 141**

email: **equest@lubrizol.com**

web: **www.warwickequest.com**

Warwick Equest Limited

Unit 55, Derwentside Business Centre
Villa Real, Consett
County Durham, DH8 6BN
United Kingdom

