



Sand Resistance Testing

STEPS



1. PRODUCT SAMPLE APPLICATION



2. SAND IMPRESSION



3. ADHERENCE TO SKIN

Physical Testing utilising human volunteers.

Supportable Claims

- Eliminate sand pick up
- Sand Resistance
- Sand proof

Objective

To determine the performance of a sample product to reduce physical attachment of sand to the skin after physical contact. Appropriate for claims of sand resistance.

Overview

The product is applied to the skin in the same fashion as prescribed for standard sunscreen testing.

Male and female test subjects are randomly selected.

They are informed of nature of test and possible adverse reactions. Only includes those who certify informed consent and are dependable, able to read, understand and follow directions.

Skin area to be tested is first washed with alcohol in order to artificially induce a dry skin condition.

The test product is applied as a controlled quantity of 1mg/sq cm unless otherwise instructed by client. The applied film of test product is allowed to dry on the skin for 15 minutes.

The test area is placed in physical contact with a calibrated surface of known area and containing oven dried sand and at controlled contact pressure.

Arm is removed and determination made of mass of sand adhering to the skin surface, compared with the other arm to which petroleum jelly has been applied as a control.

Assessment of Sand Pickup

Ratio of sand adhering to test product vis control product is determined.

Ratio of sand adhering to untreated arm compared with test/ control product is also determined.

Additional Challenge of SPF

The impact of the sand pickup can be assessed by modifying the protocol so as to determine the impact of the sand on the integrity of the sunscreen film on the skin. A solar simulator is utilised so as to test static SPF performance in the normal manner.

Rating of Sunscreens

All sunscreens tested at Dermatest have been rated and each test report includes an overview of the test sample score comparative with all other products tested up to that time.

References

Caswell M., Wood C., Matinez A. Sand resistance of sunscreens

J. Cosmet. Sci., 63, 255–258 (July/ August 2012

Eurofins Dermatest Pty Ltd
20 - 22 King St
Rockdale NSW Australia
ph 61 2 9556 2601
info@dermatest.com.au
www.dermatest.com.au