6th November 2006

The following test report complies with experimental procedures and resulting classifications of unglazed tiles as described in the International standard:

**ISO 10545 – 14:1995 Ceramic Tiles – Part 14: Determination of resistance to stains**

**Preparation of test specimens**

Type of tile tested: Granite

Prior to testing, all granite tiles were cleaned following the procedure described in the standard.

Stain resistant coatings were applied onto tiles following the procedures as per provided by Dry-Treat or described in the direction of use for those commercial available products.

1. Performance of stain resistance as a function of White King bleach washes.

The stain resistance of the following sealants was assessed after every 5 washes with neat White King bleach up to 10 washes. Each wash on tiles was conducted by immersing in neat White King bleach for 10 seconds followed by rinsing with water.

- DRY-TREAT.
- Leading European Brand.
- Leading USA Brand # 1.
- Leading USA Brand # 2.

**Staining agent**

Staining agent used:

1. Iodine 13g/L in ethanol

Staining agent was left on tiles for 24 hours.

**Cleaning agents**

Cleaning procedure B: pH = 7.5
Cleaning procedure C: pH = 10
Cleaning procedure D: Acetone
## Results

### Granite

<table>
<thead>
<tr>
<th>Classification after washes</th>
<th>DRY TREAT</th>
<th>Leading European Brand</th>
<th>Leading USA Brand #2</th>
<th>Leading USA Brand #1</th>
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</tbody>
</table>

Granite Dry Treat against Leading European and USA Brands Iodine Test

![Graph showing stain removal classification over no. of washes in bleach](image-url)
Visual Assessment

Stain was reported visually by examining the test samples at a distance of 25-30cm in daylight. Samples were classified according to ISO 10545-14:1995.

Classification 5 - stain removal by hot water (55 °C).
Classification 4 - stain removal by weak cleaning agent and non-abrasive cloth.
Classification 3 - stain removal by strong cleaning agent and rotating hard bristle brush.
Classification 2 - stain removal by soaking for 24 hours in strong solvent.
Classification 1 - stain not removed.

Conclusion

From the test, the sealant DRY-TREAT was most effective in resisting Iodine stains on granite tiles up to 35 washes in neat White King bleach compared to Leading European Brand, Leading USA Brand # 2 and Leading USA Brand # 1, which have degraded significantly after 5 washes for Leading European Brand and Leading USA Brand # 1 and 20 washes for Leading USA Brand # 2.