

Report on Compatibility of SP525 to Natural Stones

Traunreut, Feb. 15, 2011

The request to test the compatibility to natural stones was originally set by the PM especially from UK. The test was made according to ISO 16938–1 (with compression) and ISO16938-2 (without compression). The full test could not be conducted since the sizes of the different natural stones sampled to the lab were too small. So, in most cases only one specimen was made instead of three.

The stones were cut to the size that standard specimen could be prepared with sealant dimension of 12mm*12mm*50mm. The samples were cured for 4 weeks at 23°C/50%r.h. The samples were then stored for 4 weeks in compressed way and non-compressed way at -20°C, 23°C and 70°C. The compression chosen was 25% according to the movement capability of SP525.

Results:

Out of 29 natural stones 26 did not show any discoloration or staining of the joint edges after the test.

On 3 stones staining at the joint edges caused by plasticizer migration could be observed after the 70°C, the 23°C and slightly at the -20°C storage: Belgium Bluestone, Onsernone Granit sandgestrahl, Cristall weiß, poliert.

Conclusions:

SP525 is compatible to most natural stones according to ISO 16938 however not to all natural stones tested. The comparison material FA870 natural stone silicone was compatible to all stones according to ISO 16938-1 and -2.

FA870 should be the preferred material.

We can state:

SP525 causes no staining on most natural stones according to ISO 16938-1 and -2.

SP525 is tested according to ISO16938-1 and ISO16938-2 on ... (name of the natural stone) with no staining.

FA870 is not causing staining in natural stones caused by plasticizer migration.

Risks:

SP525 may cause staining in facades in few cases. ISO 16938 is a short-term test and does not really reflect all potential long-term effects. A pretest on individual substrates should be recommended.

Attachments:

The pictures show some samples of the specimen tested.

The pictures of the 3 samples failed were 24,26, and 29.

Table of the individual results.

Name of Natural Stone	Origin of sample	Result SP525	Result FA870
1 Polished Limestone	UK	NO staining	NO staining
2 Granite UK	UK	NO staining	NO staining
3 Lincoln Limestone	UK	NO staining	NO staining
4 UK Sandstone	UK	NO staining	NO staining
5 AJAX Greece	UK	NO staining	NO staining
6 Bathstone	UK	NO staining	NO staining
7 Greetham Limestone	UK	NO staining	NO staining
8 BR	UK	NO staining	NO staining
9 JW	UK	NO staining	NO staining
10 QW	UK	NO staining	NO staining
11 Jura (Germany)	UK	NO staining	NO staining
12 Bottocino	D	NO staining	NO staining
13 Brecia Aurora	D	NO staining	NO staining
14 Jura Marmor	D	NO staining	NO staining
15 Serizzo	D	NO staining	NO staining
16 Baltic Brown	D	NO staining	NO staining
17 Prosa Sardo polished	D	NO staining	NO staining
18 Blue Pearl	D	NO staining	NO staining
19 Verde SB 111	D	NO staining	NO staining
20 Nero Impala	D	NO staining	NO staining
21 Bianco Sardo	D	NO staining	NO staining
22 Rosa Beta	D	NO staining	NO staining
23 Benelux Granit	BeNeLux	NO staining	NO staining
24 Belgium Bluestone	BeNeLux	STAINING	NO staining
25 Benelux marble	BeNeLux	NO staining	NO staining
26 Onsernone Granit sandge-strahlt / Kanten gefräst	CH	STAINING	NO staining
27 Jura gelb, polirt	D	NO staining	NO staining
28 Bianco Jumma, poliert	D	NO staining	NO staining
29 Cristall weiß, poliert	D	STAINING	NO staining