



MARCHAND FLOORING STAIN RESISTANCE TEST

Test Report Summary:

The test report, provided by KLUMPP, details the evaluation of two samples (A and B) for chemical resistance against various staining agents. The key details of the report are as follows:

- Date of Samples: 2016-12-20
- Purpose of Test: Routine Quality Test
- Number of Samples: 2

Test Results Analysis:

The following table summarizes the key test results from the KLUMPP report:

Test Criteria	Reagents	Standard	Sample A Result	Sample B Result	Benchmark Interpretation
Chemical Resistance	Alcohol 20°C, 1Hr	In-house	5	5	5 = No visible change
	Vinegar Solution 2.5%, 20°C, 16Hrs	In-house	5	5	
	Red wine 20°C, 16Hrs	In-house	5	5	
	Mustard 20°C, 16Hrs	In-house	4	4	4 = Slight change of colour, only visible at certain viewing angles
	Water 80°C, 16Hrs	In-house	5	5	
	Coffee 80°C, 16Hrs	In-house	5	5	
	Black Tea 80°C, 16Hrs	In-house	5	5	
	Cola 20°C, 16Hrs	In-house	5	5	
	Red berry juice 20°C, 16Hrs	In-house	5	5	
Cross cut test	2mm	DIN EN ISO 2409	GT0	GT0	GT0 = No detachment, neither at the cuts nor at the edges of the squares of the lattice



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Test Report Summary Continued:

The KLUMPP test report indicates that both Sample A and Sample B demonstrate a high level of stain resistance.

- Excellent Stain Resistance (Rating 5): The samples exhibited no visible change when exposed to common staining agents like alcohol, vinegar, red wine, water, coffee, black tea, cola, and red berry juice. This suggests that the materials are well-suited for environments where these substances are likely to be present. This level of performance is desirable for maintaining the aesthetic appearance of surfaces over time.
- Acceptable Stain Resistance (Rating 4): When exposed to mustard, the samples showed a slight change in color, visible only at certain viewing angles. While mustard can be a challenging staining agent, this result suggests that the materials offer reasonable resistance. For most applications, this level of performance would be acceptable, especially if regular cleaning protocols are in place.
- Excellent Adhesion (GT0): The cross-cut test results (GT0) confirm that the coating on the samples has excellent adhesion to the substrate. This is a critical factor for long-term performance, as good adhesion prevents the coating from being easily damaged or removed, which could compromise stain resistance.

Conclusion:

Based on the KLUMPP test report, Sample A and Sample B demonstrate strong stain resistance properties. These materials would be suitable for a range of architectural applications, including:

- Interior surfaces: Walls, floors, countertops, and furniture in residential and commercial settings.
- High-traffic areas: Surfaces in public spaces, such as lobbies, corridors, and retail environments.
- Food and beverage areas: Kitchens, dining areas, and restaurants.
- Healthcare facilities: Hospitals and clinics, where hygiene and ease of cleaning are paramount.
- Educational facilities: Schools and universities.

Important Considerations:

- Long-Term Performance: This test report provides a snapshot of the material's stain resistance under specific conditions.
- Specific Application: The suitability of a material for a particular application will depend on the specific project requirements and the anticipated exposure conditions.
- Date of Report: The test report is dated 23-01-2015, with samples from 20-12-2014.

Disclaimer:

Original test report can be provided on request