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Assignment Report

Water tightness test of SafetyBag in accordance with ETAG 022, Annex F

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Report

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ABSTRACT

Water tightness test of SafetyBag from Probata AS

SINTEF Building and Infrastructure has, on behalf of Probata AS, carried out testing of water tightness of SafetyBag belonging to TECEprofil, type WC 1120 mm.

The tests have been carried out in accordance with ETAG 022, Annex F "*Water tightness around penetrations and other details in wet room walls with flexible substrate*".

Result: Passed

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1 INTRODUCTION

SINTEF Building and Infrastructure has, on behalf of Probata AS, carried out testing of water tightness of SafetyBag belonging to TECEprofil. type WC 1120 mm.

The tests in accordance with ETAG 022, Annex F, are performed by Geir Asle Håpnes and Bjørn-Roar Krog.

2 TEST METHOD

The tests have been carried out in accordance with ETAG 022, Annex F "*Water tightness around penetrations and other details in wet room walls with flexible substrate*".

3 TEST OBJECT

3.1 General

The test object belongs to an installation module for wall-hung WC pans. The plastic bag is covering the cistern; see Figure 3.1 and Table 3.1. The intention of the plastic bag is to prevent possible water leakages from the hidden cistern to reach the inside wall construction. The water leakage will instead be detected through the front cover or the water supply connection to the wall hung WC pan from the cistern.

Tabel 3.1

Type / name	Quantity tested	Figure
TECEprofil with SafetyBag, type WC 1120 mm	1	3.1

Fig. 3.1 – TECEprofil with SafetyBag

3.2 Assembling and mounting

Figure 3.2 and 3.3 shows pictures from the preparation of the test specimens. Figure 3.2 shows adding of liquid membrane around the front cover hole. The flange of the plastic bag was crumpled. SINTEF Building and Infrastructure was not able to stretch the flange of the plastic bag sufficiently during the assembling. These crumples may cause a problem when mounting of tiles. Figure 3.3 shows adding of liquid membrane around the water inlet to the WC pan. The flange of the plastic bag was nice and even around the water inlet hole.

Fig. 3.2: Test specimen – front cover

Fig. 3.3: Test specimen – water inlet WC pan

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4 TESTS, METHOD, REQUIREMENTS AND RESULTS

Table 4.1: Summary of results

Chapter	Test	Passed	
		Yes	No
4.1	ETAG 022, Annex F	x	

4.1 Water tightness of SafetyBag (ETAG 022, Annex F)

Method: The test specimens are exposed to cycles of hot water spraying, cold water spraying, drying and mechanical forces. The test specimens are exposed to the following cycle:

1. Hot water (60 ± 3 °C) for 60 seconds
2. Break for 60 seconds
3. Cold water (10 °C ± 3 °C) for 60 seconds
4. Break for 60 seconds

This cycle is repeated 1500 times. After 1500 cycles the test pieces were rested for two days. The test pieces have not been exposed to a dynamic load since it is not applicable. This is a deviation in accordance with the original test procedure. Hereafter the test pieces were exposed to further 1500 cycles of hot and cold water as described above.

Requirements: Any detection of moisture penetration or changes in appearance is registered. Opening of the test specimen around the details investigated is recommended to get the best basis for evaluation.

Results: No detection of moisture penetration was registered. No changes in appearance of the SafetyBag were registered. There might be problems as described in Chapter 3.2 regarding mounting of tiles around the front cover.

Passed

Fig. 4.1 and 4.2 shows the test specimens after the test cycles were finished.

Fig. 4.1: Test specimen – front cover

Fig. 4.2: Test specimen – water inlet WC pan