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Test of adhesive strength

(1 appendix)

Introduction

On the instructions of HTC Sweden AB, CBI has carried out a test of adhesive strength at HTC's premises in Söderköping.

The client has prepared 2 test sites (approx. 1200 x 1200 mm).

Test site 1 consisted of a concrete surface which had been grinded and coated in a 2–3 mm thick layer of epoxy.

Test site 2 consisted of a blasted concrete surface coated in a 2–3 mm thick layer of epoxy.

A load in the form of a truck making 50 passes had been applied to approximately 1/3 of each of the test surfaces.

According to the client, the total weight of the truck was 4370 kg.

Test date

19 May 2009

Testing method

Before the start of testing, the test sites were prepared by drilling (Ø50 mm) through the epoxy and approximately 1–2 mm into the concrete.

Traction bosses of Ø50 mm were glued to all test sites. The traction test was carried out using an EASY M type F10D adhesion apparatus made by FREUNDLER, with a load speed of 0.05 MPa/s.

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Appendix 1 Test results

This is a translation from the Swedish original document. In the event of any dispute as to the content of the document, the Swedish text shall take precedence.

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Appendix 1

Test results**Adhesive strength test site 1, loaded surface**

Test labelled	Failure load (kN)	Adhesive strength (MPa)	Type of failure*
1A	8.05	4.10	A
2A	8.50	4.35	A
3A	8.69	4.40	A
Mv	8.41	4.30	

Adhesive strength test site 1, non-loaded surface

Test labelled	Failure load (kN)	Adhesive strength (MPa)	Type of failure*
1B	9.17	4.65	A
2B	9.76	4.95	A
3B	8.37	4.25	A
Mv	9.10	4.60	

Adhesive strength test site 2, loaded surface

Test labelled	Failure load (kN)	Adhesive strength (MPa)	Type of failure*
1A	10.09	5.15	A
2A	8.44	4.30	A
3A	8.84	4.50	A
Mv	9.12	4.65	

Adhesive strength test site 2, non-loaded surface

Test labelled	Failure load (kN)	Adhesive strength (MPa)	Type of failure*
1B	5.79	2.95**	A
2B	9.04	4.59	A
3B	7.54	3.83**	A
Mv	7.46	3.80	

***Type of failure**

A = Failure in concrete substrate

** These tests produced a greater quantity of fine material in the failure surface than the other tests.