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Snapp Products of Sweden  
Sjönanäs 3  
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## Testing of block for stay-anchor

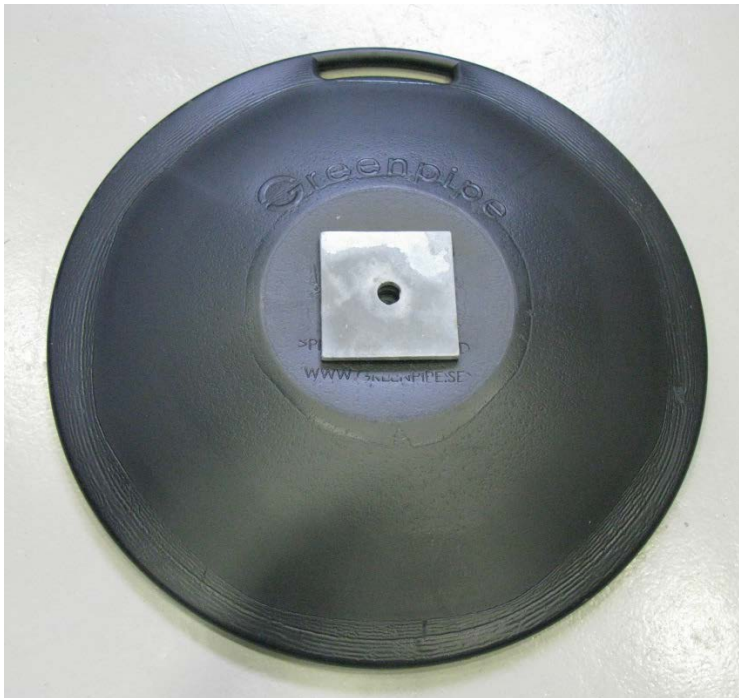
### 1 Introduction

SP has been commissioned by Snapp Products of Sweden to perform compression test on block for stay-anchor .

Place of testing: SP Structural and Solid Mechanics, Borås.

### 2 Test objects

Designation: Black block for stay-anchor made of polyethylene. Diameter 640 mm, weight 10.9 kg.



**Photo 1. Test object with washer S4B 120x120x10mm.**

Selection of test objects: Performed by the client without SP's assistance.

Arrival of test objects: April 29, 2015.

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### 3 Test method

Test date: April 29, 2015

Performance: Tests according to applicable parts of SS 424 11 35 have been performed. This standard applies to block for stay-anchors made from concrete and with a diameter of 430 mm.

The blocks were placed in a circular container, diameter 820 mm, filled with moist sand 0-8 mm, delivered by the customer. The height of the sand in the container was 220 mm. The blocks were loaded on a washer S4B 120 x120 x10 mm. The tests were performed in an servo hydraulic Instron 2008 testing machine in load control with test speed 1 kN/s. No pre-test conditioning has been performed by SP.



Photo 2. Test setup.

### 4 Test results

The test results shown in this report refer only to the tested objects.

The test result is shown in Table 1 and photo 3.

Table 1 Test result

Block for stay-anchor No	Load 1) kN	Maximum Load 2) kN	Remarks
1	86	96	Fracture 3)
2	86	95 **)	Cracks, see photo 3
3	114	130	Fracture 3)

- 1) Click sound noted, that could indicate a crack.
- 2) The test was interrupted.
- 3) Fracture before unloading.



**Figure 4. Cracks.**

The requirement for concrete block for stay-anchor, diameter 430 mm according to SS 424 11 35 is 75 kN.

## 5 Measurement uncertainty

The total calculated measurement uncertainty for the force  $< 1\%$ . Reported uncertainty corresponds to an approximate 95 % confidence interval around the measured value. The interval has been calculated in accordance with EA-4/16 (EA guidelines on the expression of uncertainty in quantitative testing), which is normally accomplished by quadratic addition of the actual standard uncertainties and multiplication of the resulting combined standard uncertainty by the coverage factor  $k=2$ .

### SP Technical Research Institute of Sweden SP Structural and Solid Mechanics - Life and Reliability

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