Arbeitsbereich Bauerhaltung

Gutenbergstr. 29
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Germany

Date: Nov 25th, 2007
Our References: sh

Test Report Nr. 2.5/20700/917.0.1-2007e

General:

Order by:	**Lübbering Umwelttechnik GmbH** **Landstr. 2** **58730 Fröndenberg**
Order date:	06.11.2007
Material delivery:	06.11.2007
Material:	Manhole cover, steel according to DIN EN 124 manufacturer´s designation: **WADI-ME-42** (applicant´s designation)
Tests	Static load test according to DIN EN 124 Testing conducted November 6th, 2007. Results apply exclusively to the submitted specimen.

Results are reported with the accuracy given in the standards. For statistical use the measured accuracy is taken.

This test report contains 2 pages and 2 enclosures (A1-A2). The report may not be published in parts.

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1. Preface

The manhole cover delivered by the Fa. Lübbering has the following specifications:

Cover: welded construction, installed in steel frame (inner width LW 1067 mm).

Construction and dimensions of the manhole cover are detailed in enclosures A1 and A2.

2. Test method

The proof load (according to DIN EN 124 paragraph 8.1) has been applied by hydraulic cylinder (Enerpac 600 kN) with electric pump and constant load maintenance.
Pressure reading was by digital manometer (Fa. Kobold, type MAN-SF 26AV1, 0 – 1000 bar) with a resolution of 1 bar. The test control unit (cylinder, pump, display) had been calibrated with a class 1 testing machine.
Load transmission was carried out with a steel-plate (d=250mm) via an interlayer of needle punched nonwoven.
The deformation was measured with a displacement transducer (Mitutoyo) accurate to 0.01 mm. The steel frame was applied to the test frame with a layer of needle punched nonwoven (approx. 10 mm thick).

3. Procedure

Test sample was tested for keeping up against a proof load of 400 kN (class D 400).
For that purpose a load of 2/3 of the proof load was applied five times for 30 sec each. After load relieving the plastic deformation in the geometric centre of the test item was measured.

4. Results

The manhole cover exhibits a bowing under load of 0.7 mm after five times of loading to 2/3 of 400 kN.
Therefore, it meets the standard required of D 400-systems (sag < LW/300 = 1067/300 = 3.6 mm)

Prof. Dr.-Ing. Müller-Rochholz

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