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Tensile strength test on clip-on eyelets

1 Introduction

By commission of Amicus Trade AB strength testing on Holdon Midi- and Homax clip-on eyelets was performed.

Test place: Laboratory of SP Building Technology and Mechanics.

2 Test objects

Designation: Holdon Midi- and Homax clip-on eyelets, see photos 1 and 2. The holding efficiency is tested on 180 g/sqm polyethene tarpaulin, see photo 3.



Photo 1. Holdon Midi

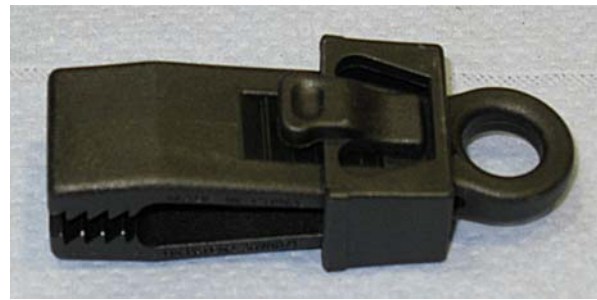


Photo 2. Homax

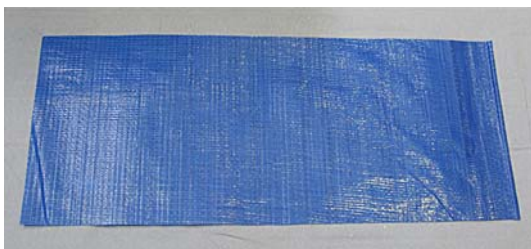


Photo 3. 180 g/sqm polyethene tarpaulin

Selection of test objects: The test objects have been selected by the client without SP's assistance.

Arrival of test objects: 18 June, 2008.

Test date: 23 June - 24 June, 2008.

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3 Test method and implement

Holdon Midi- and Homax clip-on eyelets were tested on polyethene tarpaulin to see the holding efficiency. The test objects were mounted in the testing machine called Adamel, see photo 4 for test setup. Homax was mounted in the end with hemmed tarpaulin with cord in hem, Holdon Midi was mounted in the end with no hem in tarpaulin. The test objects were then pulled to fracture with a constant speed of 20 mm/min.



Photo 4. Test setup

4 Test results

The test results are shown in table 1. The test results shown in this report refer only to the tested objects.

Table 1. Results for test setup with Holdon Midi and Homax on polyethene tarpaulin.

Marking	Maximum breaking load (N)	Remarks
Midi-Homax	191	Homax clip-on eyelet slip from the tarpaulin
Midi-Homax	179	Homax clip-on eyelet slip from the tarpaulin
Midi-Homax	156	Homax clip-on eyelet slip from the tarpaulin
Midi-Homax	194	Homax clip-on eyelet slip from the tarpaulin
Midi-Homax	142	Homax clip-on eyelet slip from the tarpaulin

5 Measurement uncertainty

The total calculated measurement uncertainty for the load is $< 1\%$. Reported uncertainty corresponds to an approximate 95 % confidence interval around the measured value. The interval has been calculated in accordance with GUM (The ISO guide to the expression of uncertainty in measurements), which is normally accomplished by quadratic addition of the actual standard uncertainties and multiplication of the resulting combined standard uncertainty by the coverage factor $k=2$

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