



TEST REPORT

AASHTO M 306-04 Cover Test FL760 Class H20 and H25

Date: 12/04/13

Client: Fibrelite Composites Ltd.

Cover

The cover supplied is a round FL760 and of composite construction. (See photo. 1)
No. on cover – 381

The cover was tested in a composite frame.
Frame No. 12 15357



Photo. 1

Test Rig

The test rig consists of a 'giant mecano' frame bolted to the floor and supporting the Enerpac 50 tonne hydraulic cylinder. (Photo 2)



Photo. 2

The cover and frame were sat on steel channels and plates with steel shims to pack and level.

Test

The test was carried out in accordance with AASHTO M 306-04, Clauses 5.1 and 5.2.

The load was applied to the cover through a 229mm X 229mm by 20mm thick steel plate with a 229mm x 229mm MDF pad between the plate and cover.

The load was measured using a 1000kN load cell (serial no. 3243N) and digital load indicator (serial no. D.I.B.1).

The deflection was measured at the centre on the underside of the cover using a dial indicator.

The cover was tested to H20 and then to H25.

The H20 test consists of proof loading the cover to 178kN (40,000lb) and holding the load for 1 minute.

The load was then released, the permanent deformation measured and the cover inspected for any damage.

If the cover held the proof load, passed the permanent deformation criteria and no cracks were detected the cover was then proof loaded to H25.

The H25 test consists of proof loading the cover to 222kN (50,000lb) and holding that load for 1 minute.

Results

LOAD (kN)	DEFLECTION (mm)	REMARKS
0	0.00	
178 (H20)	13.42	
0	0.89	
222 (H25)	17.67	
0	1.33	

H20 Test

The cover held the proof test load of 178kN for the required 1 minute and with no visible signs of any cracking.

In accordance with Clause 5.1 of the AASHTO M306-04 standard the permanent deformation was 0.89mm and is within the 3.2mm that is allowed.

The cover therefore passed the H20 test.

H25 Test

The cover held the proof test load of 222kN for the required 1 minute and with no visible signs of any cracking.

In accordance with Clause 5.1 of the AASHTO M-306-04 standard the permanent deformation was 1.33mm and is within the 3.2mm that is allowed.

The cover therefore passed the H25 test.

M.A.Salisbury
Senior Technician

M. A. Salisbury