BUILDING STRUCTURES DEPARTMENT
BUILDING STRUCTURES LABORATORY

TEST REPORT Nº LK17EN-1844/12/R12NK

Customer:	Sapa Building System Polnad Sp. z o.o.
Address:	ul. Graniczna 60, 93-428 Łódź
Information about object of test	
Object of test:	Glass supports VS1168, SAPA curtain walling
Date of reception:	15.05.2013
Nº of reception protocol:	LK17-1844/12/R12NK
Reception procedure:	PZ ZLB 18
Information about tests	
Test commencement date:	15.05.2013
Test completion date:	15.05.2013
Further information about tests:	-

Test methods:

ITB Test Method

1 The scope of test

The range of tests covered the load bearing capacity of glass supports.

Personnel executing the tests:

- Daniel Kuna - Building Research Institute
- Paweł Jędrzejczyk - Sapa Building System

Sapa Equipment:

- hydraulic servomotor Rexroth MSK-076 C,
- KS ZDP 20KN PC test rig to mounting the specimens,
- potentiometric displacement sensors.

2 Test specimen

The list of tested elements:

Glass support	Profile	Requirement
VS1168	52V25	Displacement with the difference in measurement points on the glass support under a load ≤ 0.5 mm (by ETAG 002-01, §.5.1.4.3.1, p.33)

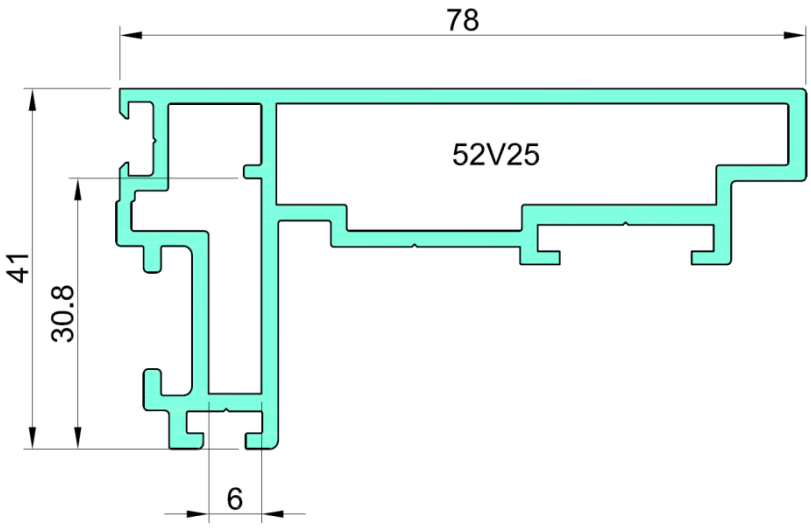


Fig. 1. Cross section profile 52V25.

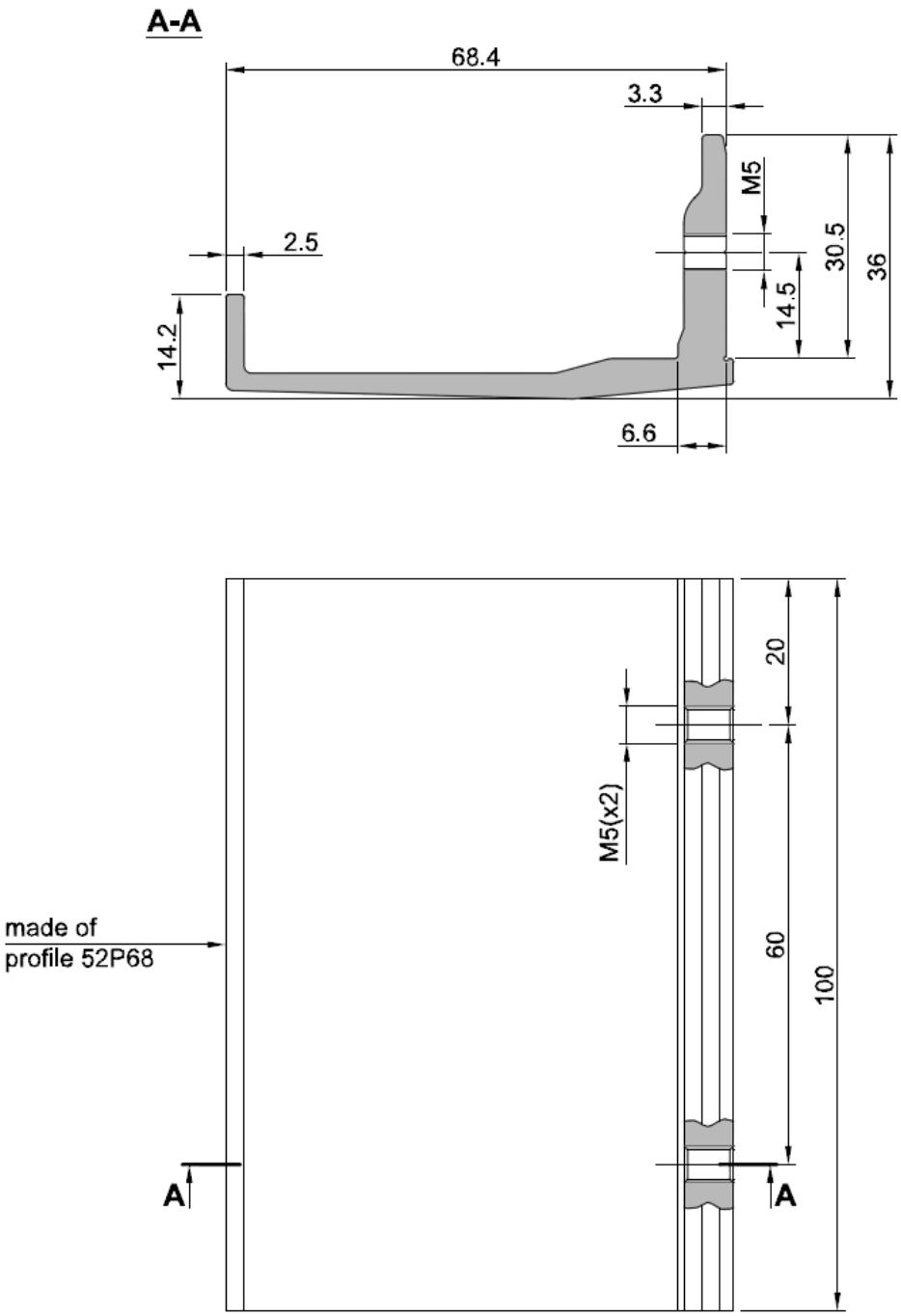


Fig. 2. Glass support VS1168.

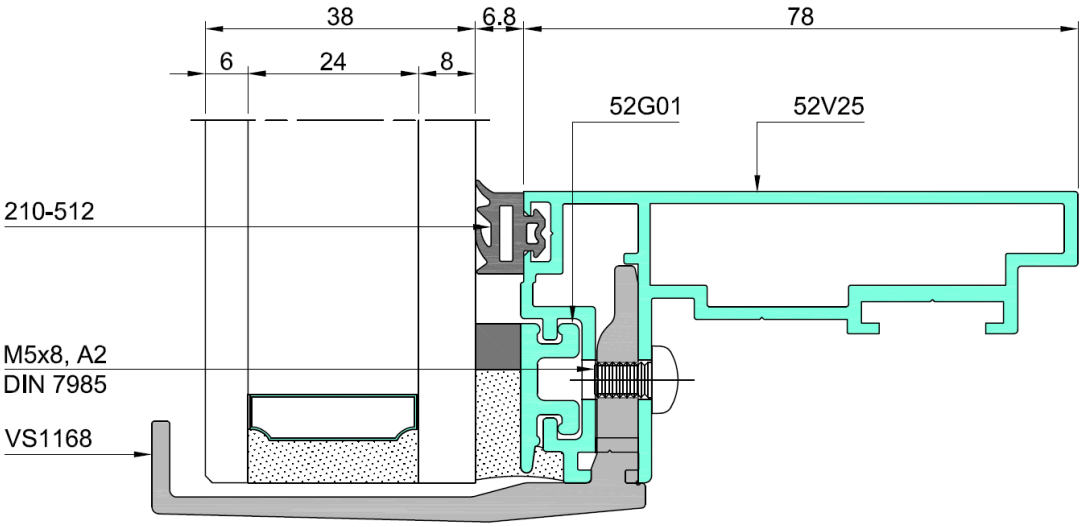


Fig. 3. Glass support VS1168 fixed on 52V25 profile.

3 The test methods and results

Tested element: **glass support VS1168 fixation on 52V25 profile**

Mounting / testing: in accordance with fig. 4

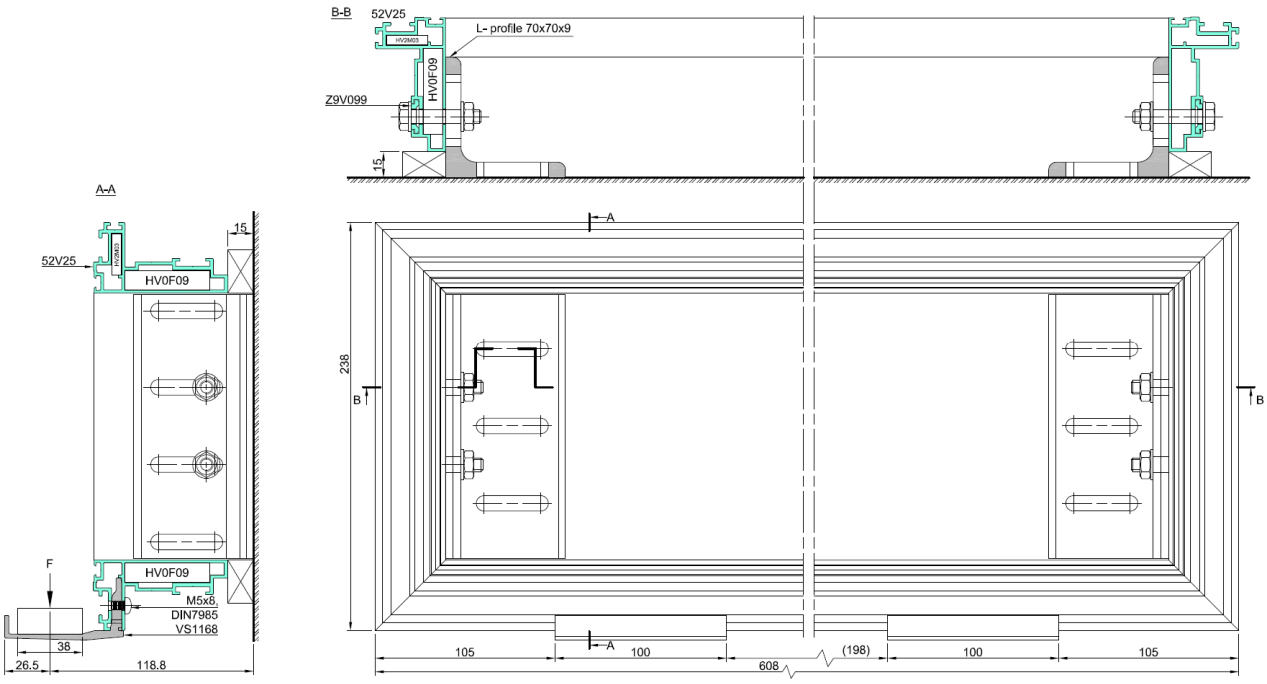


Fig. 4. Details of the samples composition.

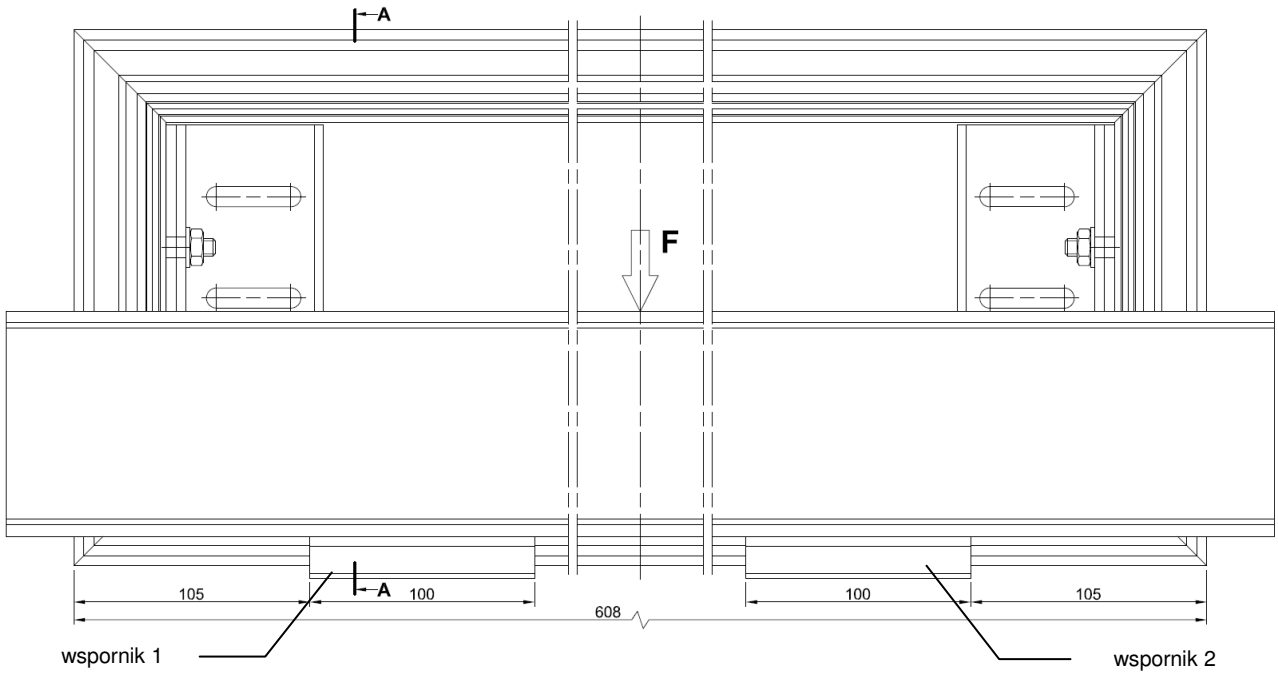


Fig. 5a. Details of loading scheme.

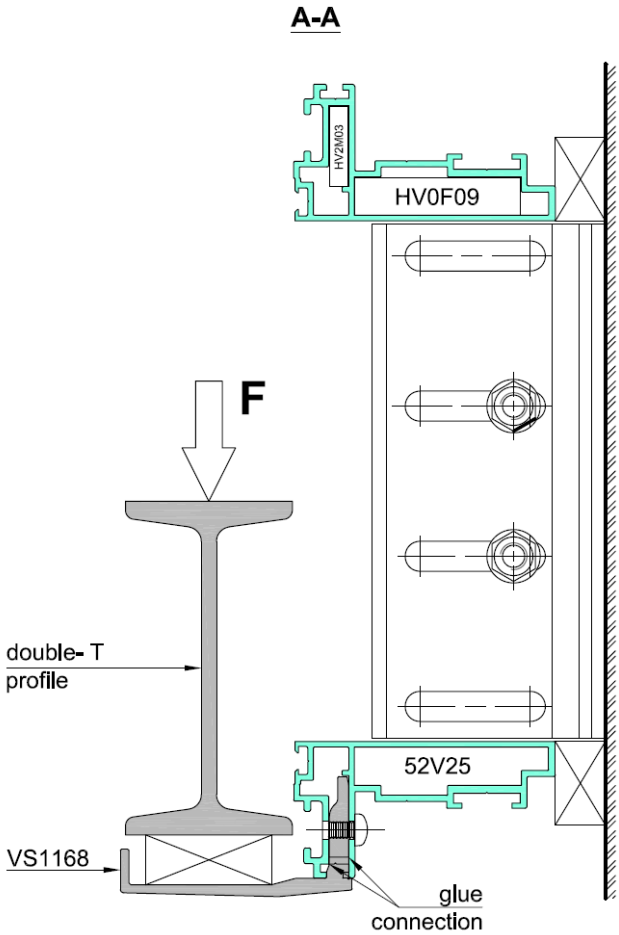
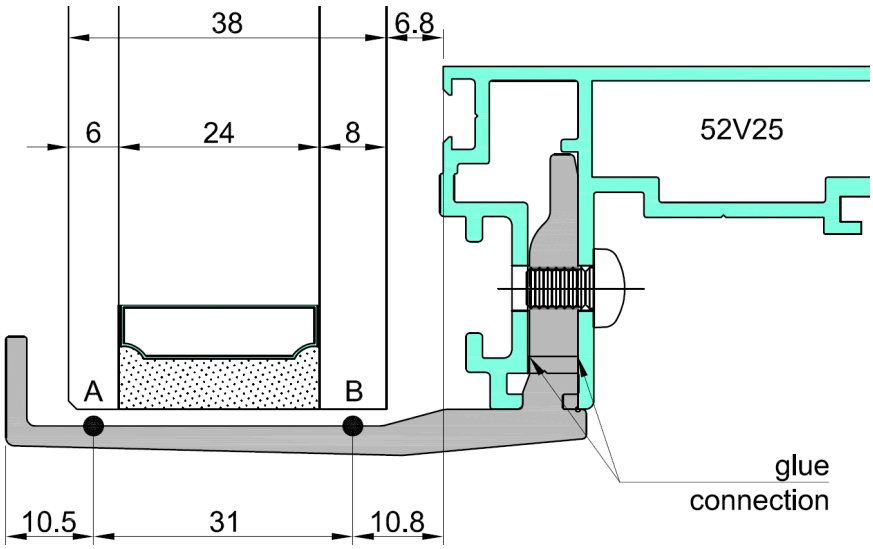


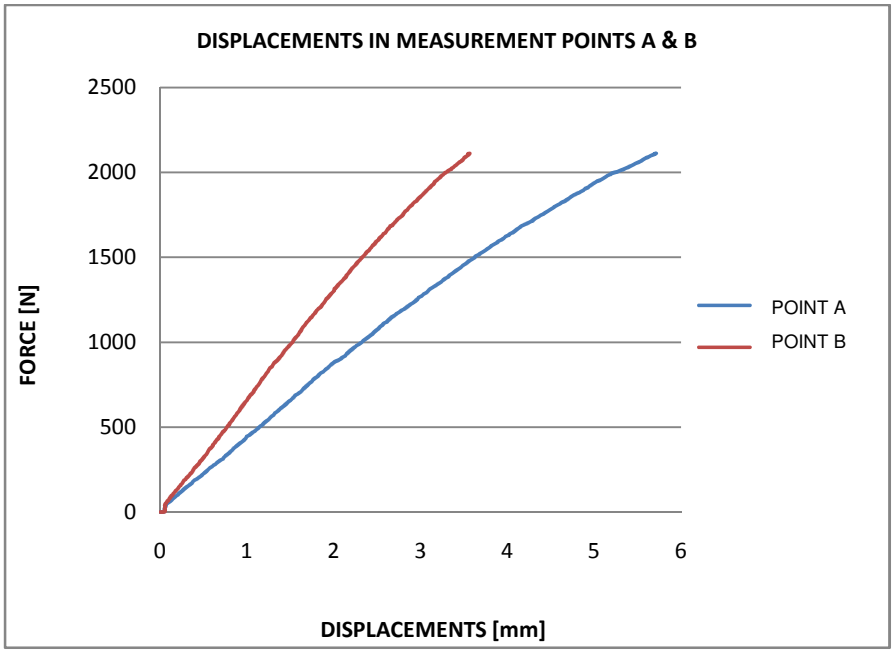
Fig. 5b. Details of loading scheme.



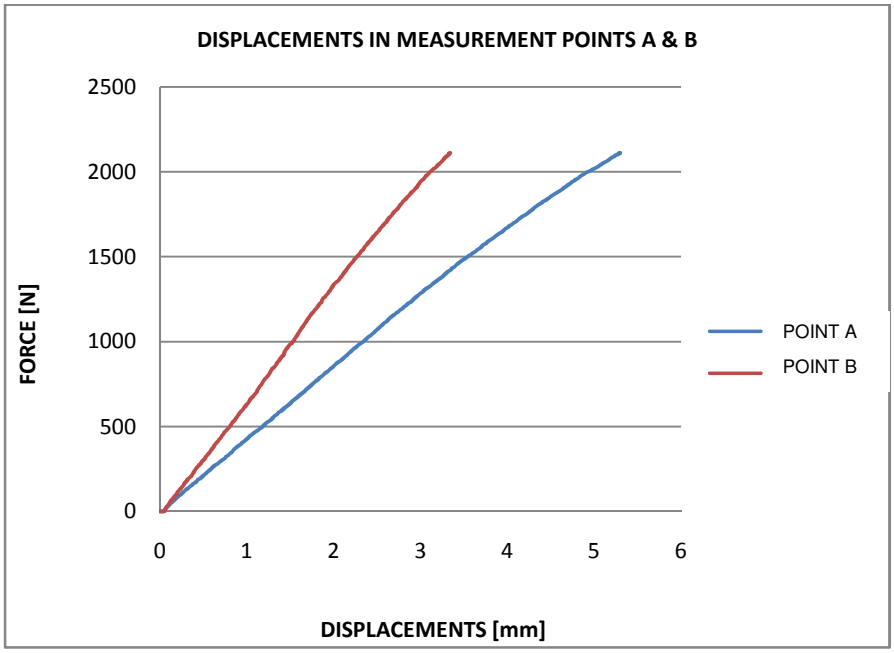
A and B- displacement measurements points

Fig. 6. Displacements measurement points.

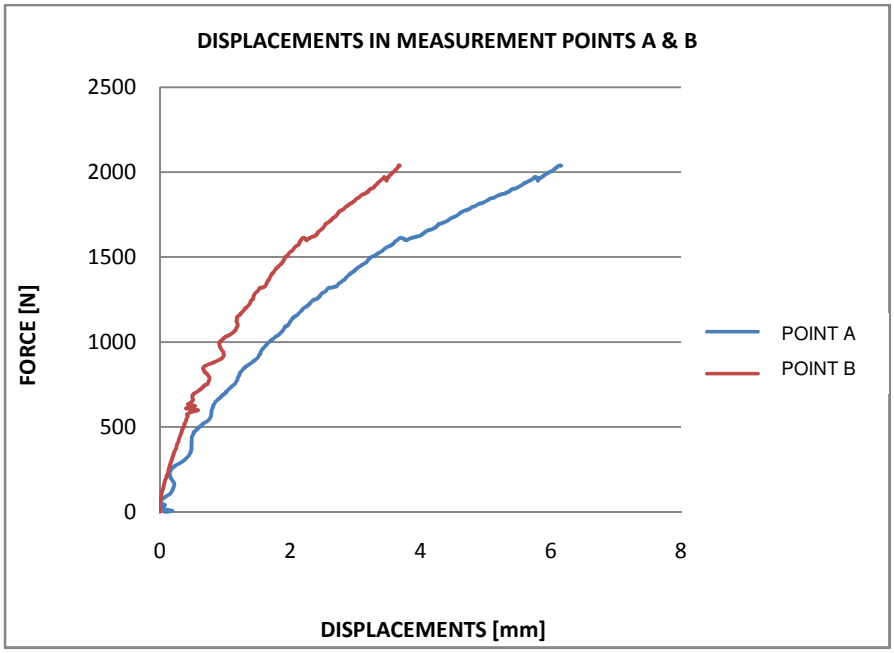
Test results presented in graphical form



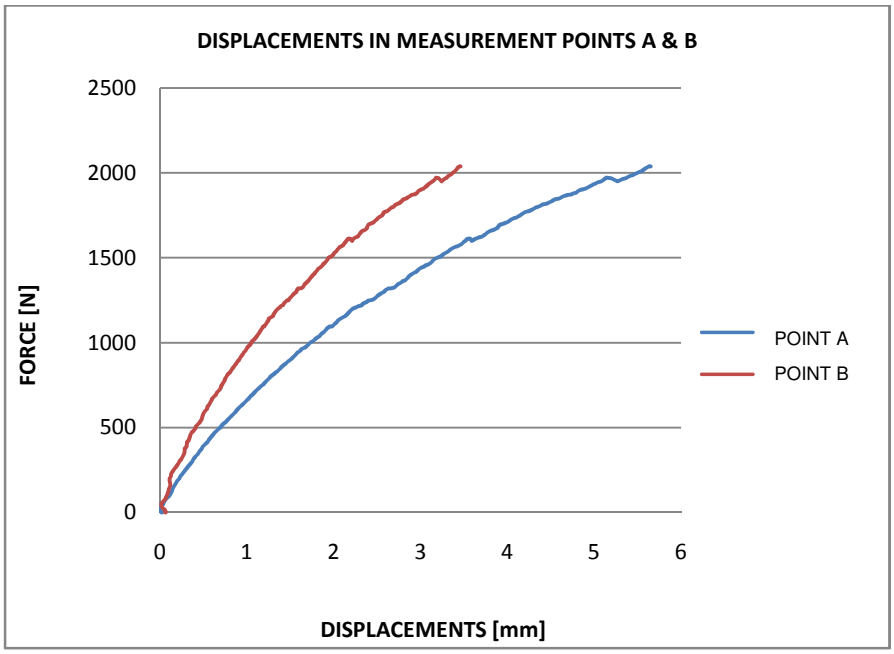
Graph 1a. Test 1; glass support 1.



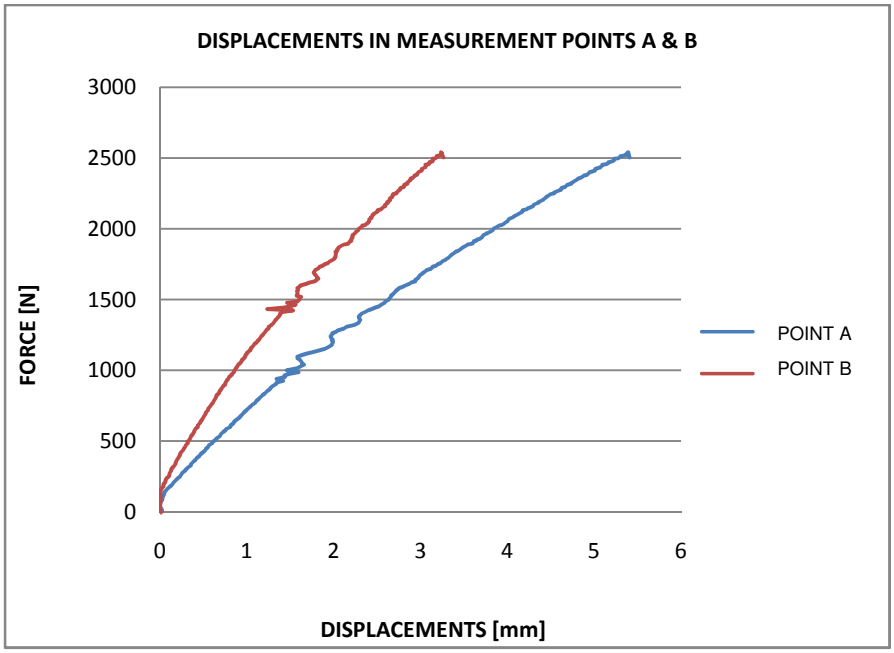
Graph 1b. Test 1; glass support 2.



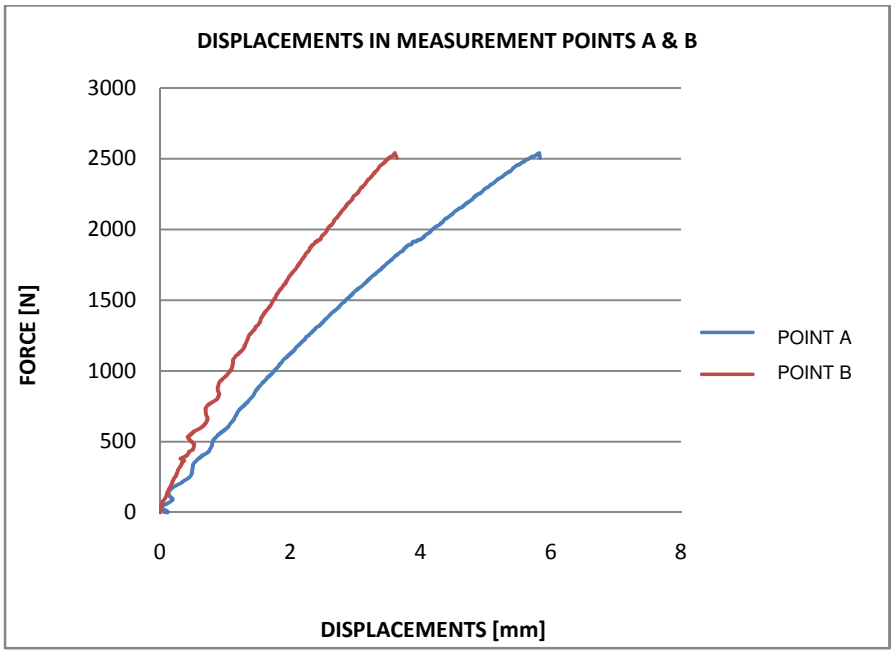
Graph 2a. Test 2; glass support 1.



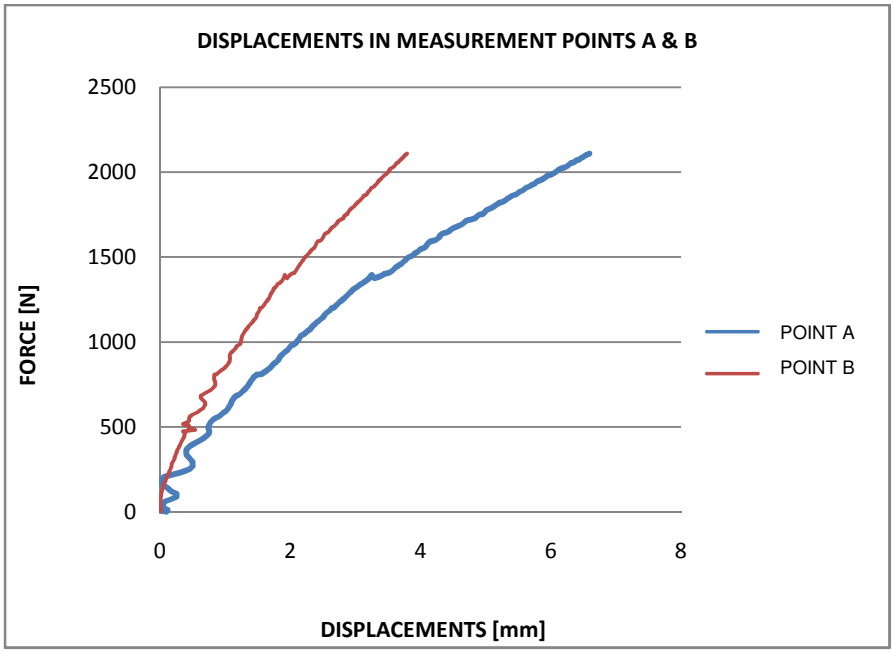
Graph 2b. Test 2; glass support 2.



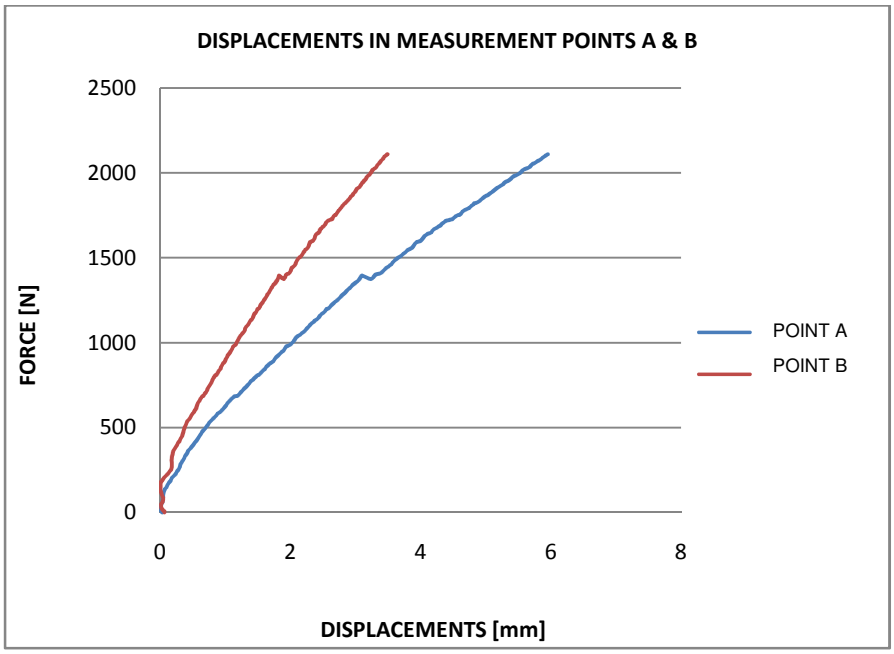
Graph 3a. Test 3; glass support 1.



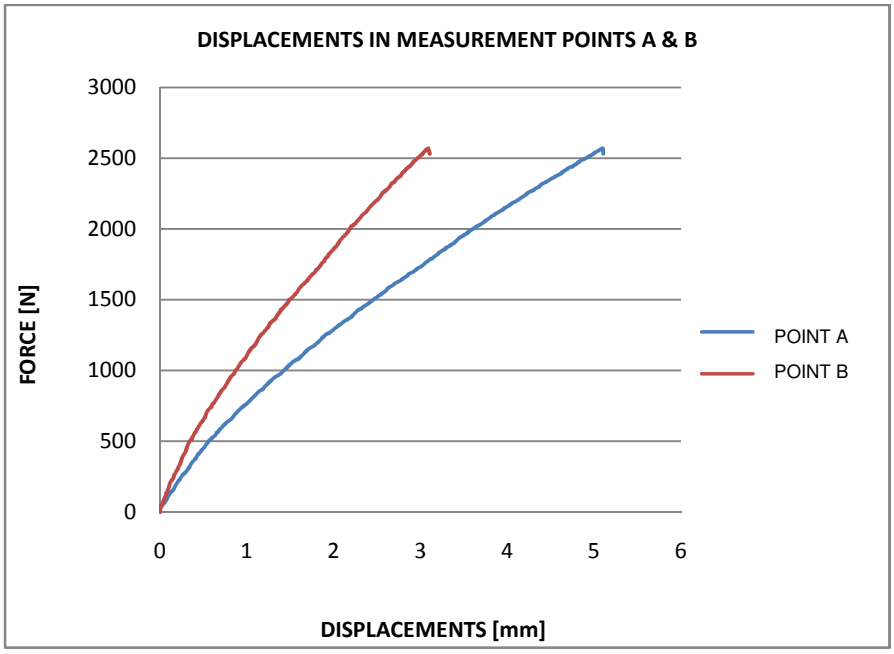
Graph 3b. Test 3; glass support 2.



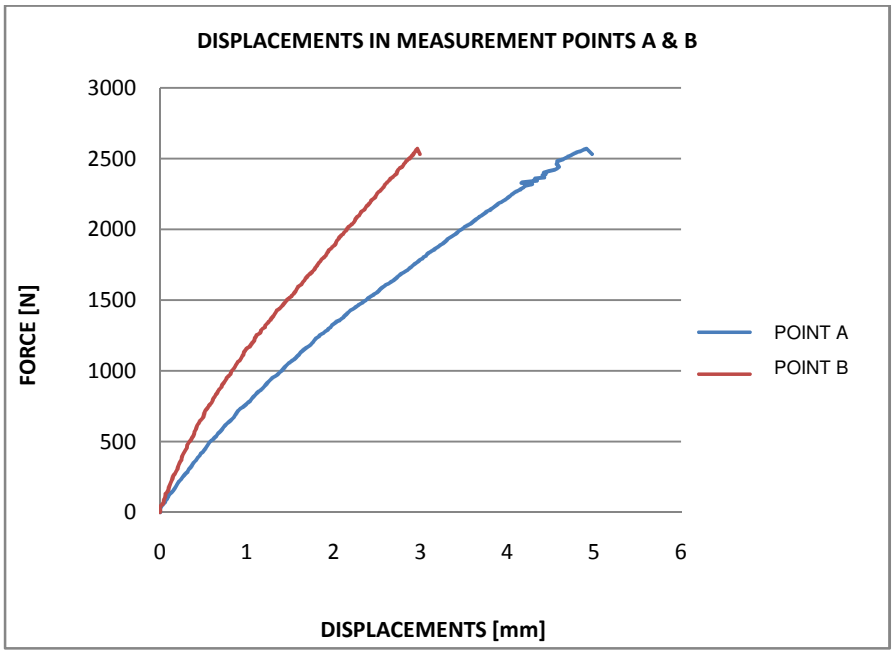
Graph 4a. Test 4; glass support 1.



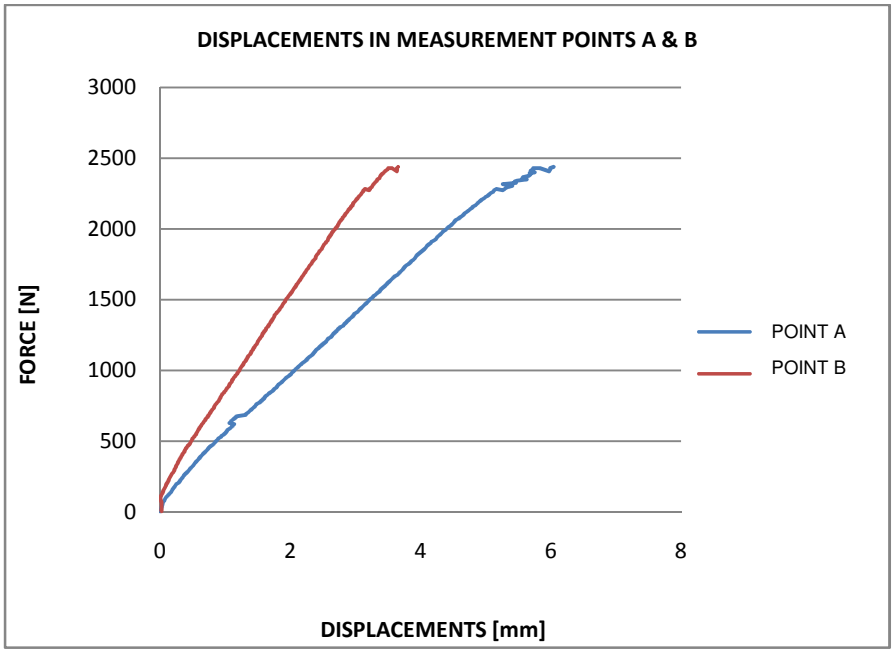
Graph 4b. Test 4; glass support 2.



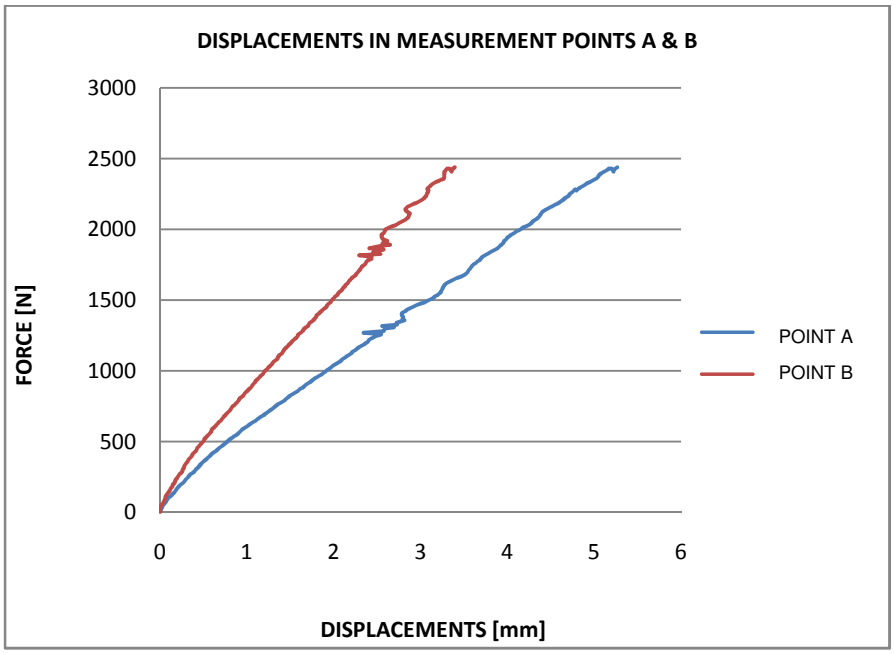
Graph 5a. Test 5; glass support 1.



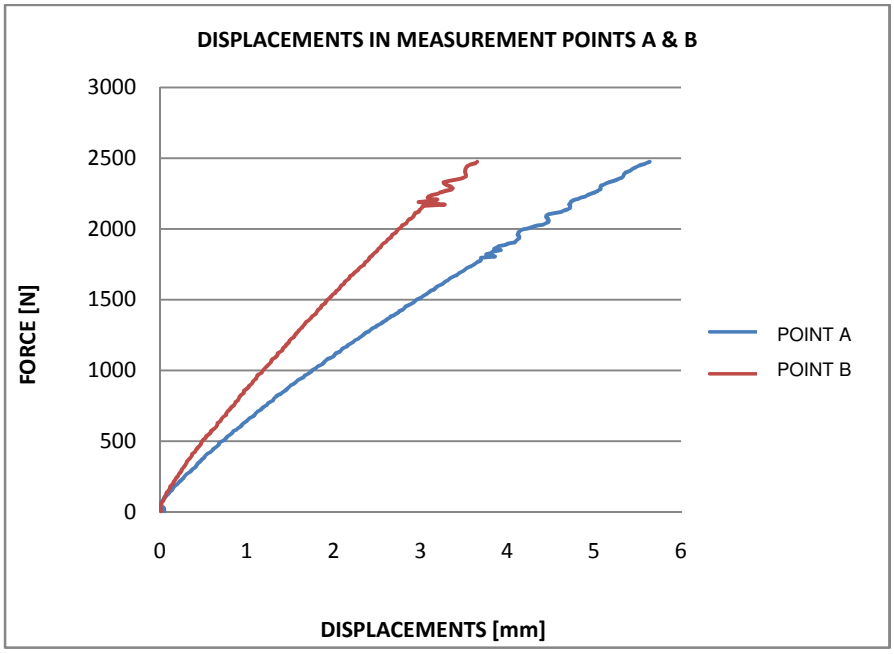
Graph 5b. Test 5; glass support 2.



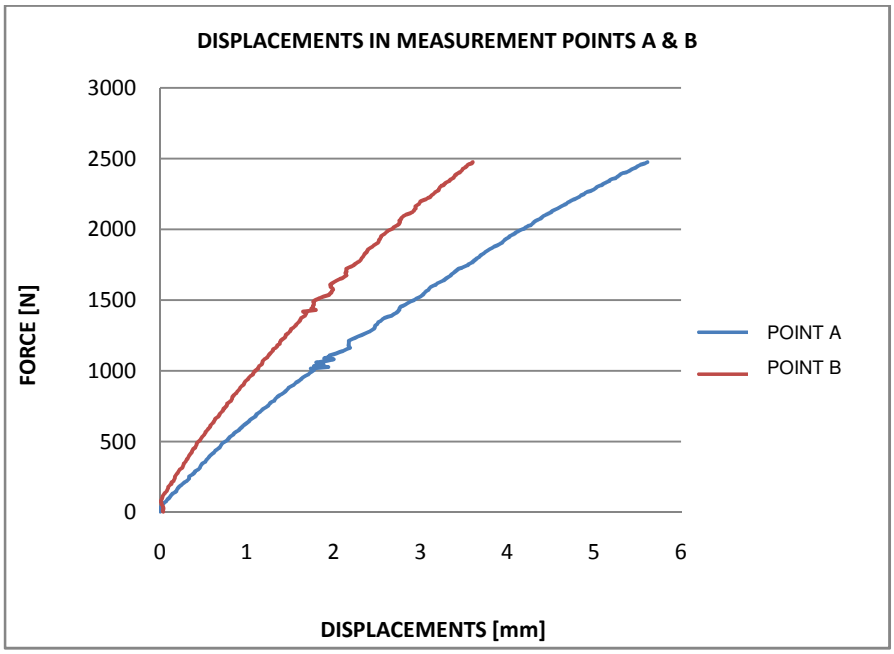
Graph 6a. Test 6; glass support 1.



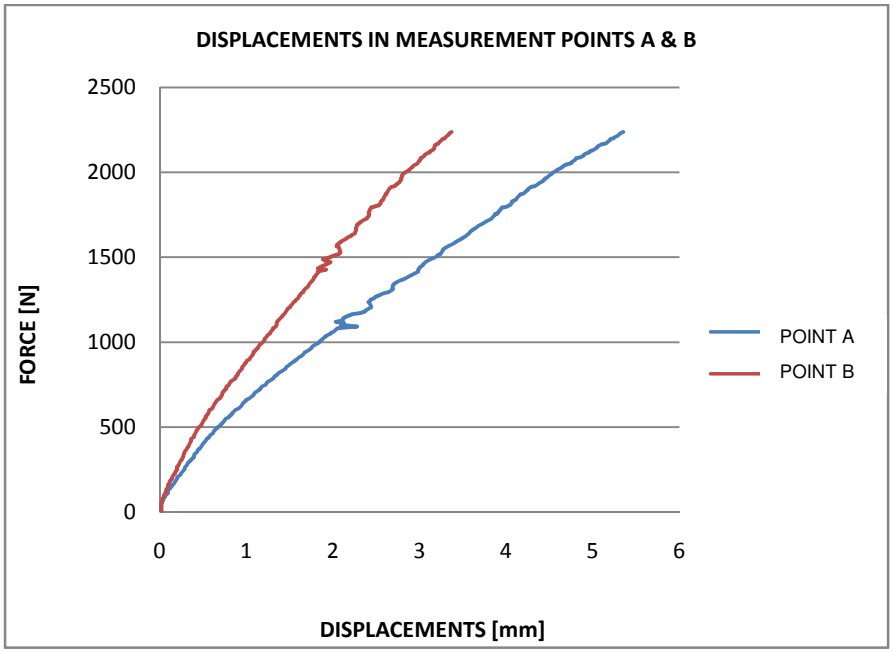
Graph 6b. Test 6; glass support 2.



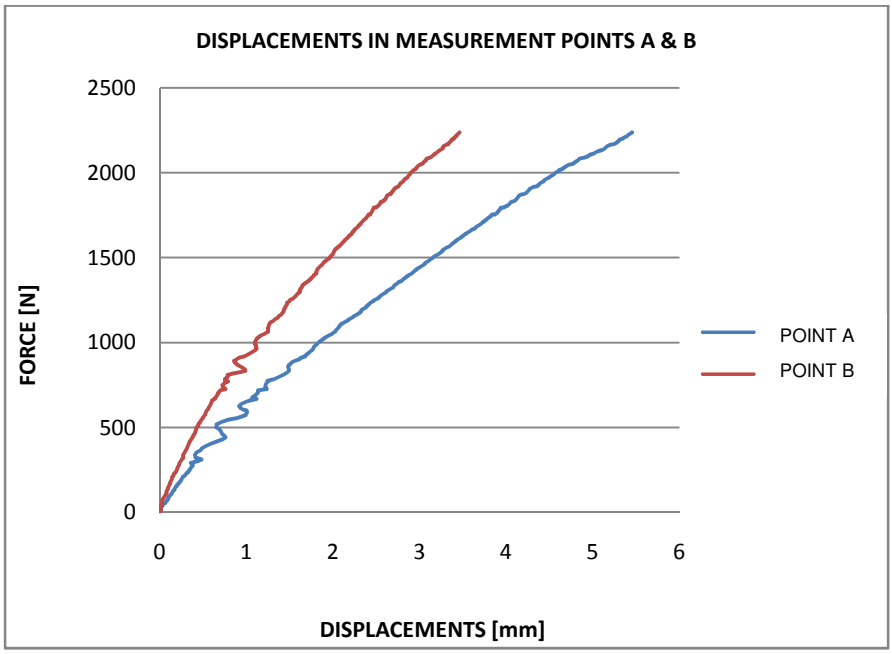
Graph 7a. Test 7; glass support 1.



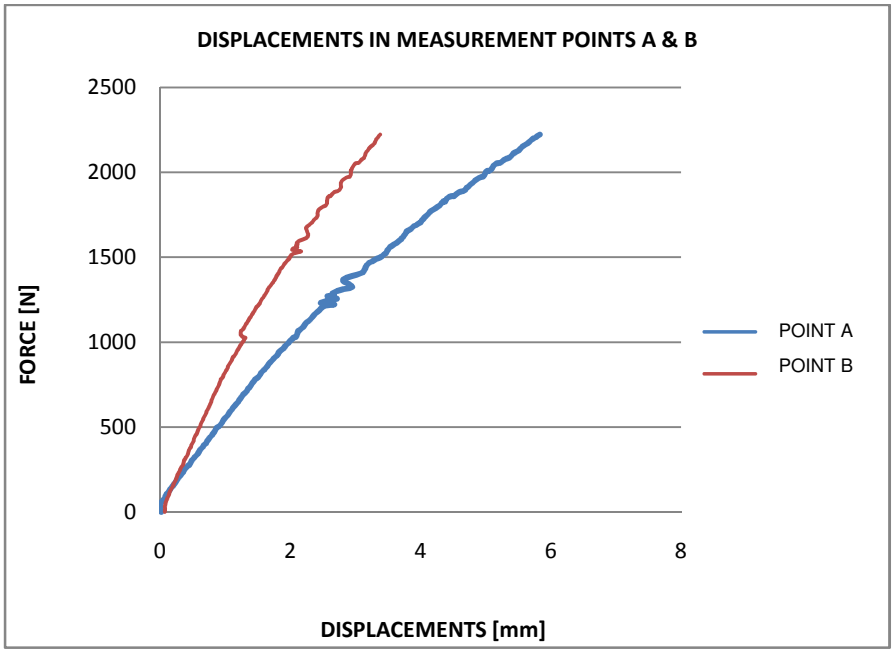
Graph 7b. Test 7; glass support 2.



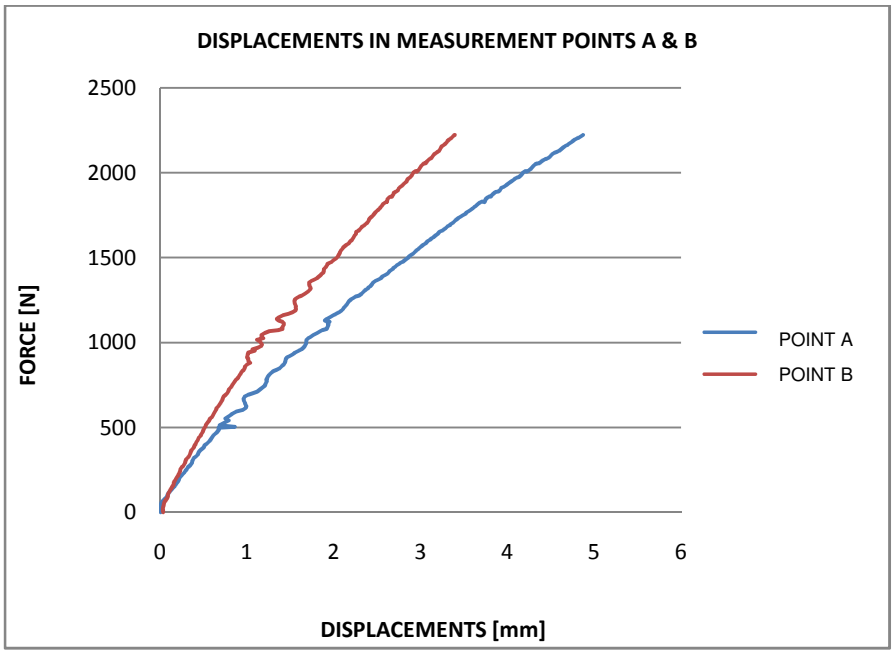
Graph 8a. Test 8; glass support 1.



Graph 8b. Test 8; glass support 2.



Graph 9a. Test 9; glass support 1.



Graph 9b. Test 9; glass support 2.

Tab. 1 Force values obtained for the displacement difference in points A and B equal to 0.5 mm

Test	Glass support	Measurement	Force [N]
1	support 1	1	658,8
	support 2	2	658,8
2	support 1	3	813,3
	support 2	4	791,4
3	support 1	5	795,8
	support 2	6	718,0
4	support 1	7	673,7
	support 2	8	687,3
5	support 1	9	952,1
	support 2	10	900,1
6	support 1	11	686,3
	support 2	12	772,6
7	support 1	13	921,4
	support 2	14	800,7
8	support 1	15	842,9
	support 2	16	784,3
9	support 1	17	771,1
	support 2	18	930,5
Average value of the load [N]			786,6
Standard deviation [N]			95,1

Responsible for the test
dr eng. Krzysztof Kuczyński

Authorizing person
Marzena Jakimowicz, Msc

Warsaw 2013 -06- 24

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Head of Testing Laboratory
dr eng. Paweł Sulik