

Test report

REPORT NUMBER:
316021-3



**DANISH
TECHNOLOGICAL
INSTITUTE**

Gregersensvej
DK-2630 Taastrup
+45 72 20 20 00
Info@teknologisk.dk
www.teknologisk.dk

Page 1 of 3
Init: ANCA/AGS
Enclosures: 1

Client: Novafix ApS
Tinvej 11
4100 Ringsted

Subject: Adjustable Multi-Brackets:
Universal multi-bracket (UMB) with and without adapters (ABU)

Sampling: Samples were brought by Novafix ApS on Wednesday 9th April 2025.

Test Period: The test was performed Wednesday 9th April 2025.

Test: Compressive test of Universal multi-bracket (UMB) with and without adapters (ABU) at 5 mm/min reporting compressive displacement after slack correction as described in ASTM D695-23 Standard Test Method for Compressive Properties of Rigid Plastics when the first sign of break appears.

Results: See page 2-3 and enclosure 1.

Remarks: None

Terms: The test was conducted in accordance with international requirements (ISO/IEC 17025:2017) and in accordance with the general terms and conditions of The Danish Technological Institute. The test results apply to the tested products only. This test report may be reproduced in extract only if the Danish Technological Institute has granted its written consent.

Test place: Danish Technological Institute, Plastics & Packaging

Signature: This document is only valid with a digital signature from Danish Technological Institute. The date of issue appears from the digital signature. Approved and signed by:

Anders Ask Carton
Business manager

Test

Compressive test of Adjustable Multi-Brackets at 5 mm/min. Reported values represent the first point when observed failure/break was recorded and/or at 2 mm compressive displacement.

The bracket was mounted using two 8mm 8.8 steel bolts.

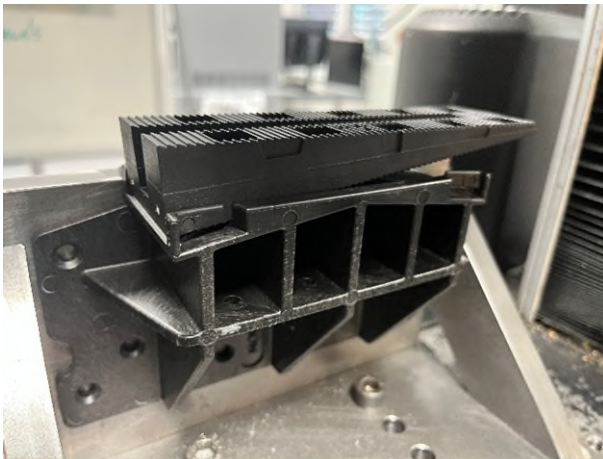
Equipment

Instron Universal Tensile Tester, 5569 H1500 (32T01.10.1) with 50kN load cell (32T01.11.1)

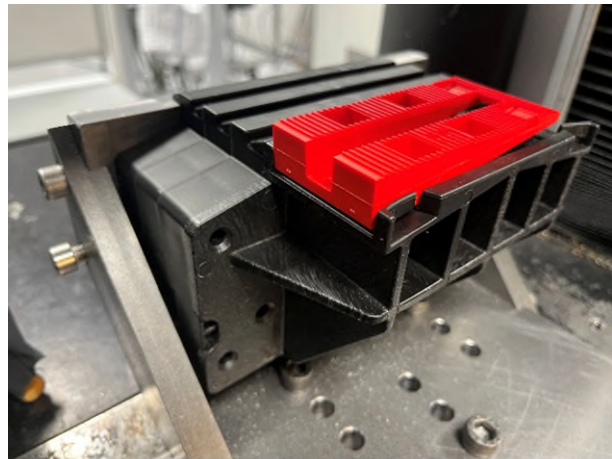
Samples

- Universal multi-bracket (UMB)
- Adapter for universal multi-bracket (ABU)
- Red Wedge / Size 3
- Black Wedge / Size 4

Test Setup



Universal Multi-Bracket (UMB) with Black Wedge / Size 4, without adapters



Universal Multi-Bracket (UMB) with Red Wedge / Size 3, with 3 adapters (ABU)

Test Results

Test performed at $23 \pm 2^\circ\text{C}$

Figures in brackets indicates the n-1 standard deviation.

Universal multi-bracket, without adapter		
Wedge type	Displacement @ Break [mm]	Load @ Break [kg]
Red Wedge / Size 3	3.1 (0.2)	499 (36)
Black Wedge / Size 4	2.7 (0.4)	408 (30)

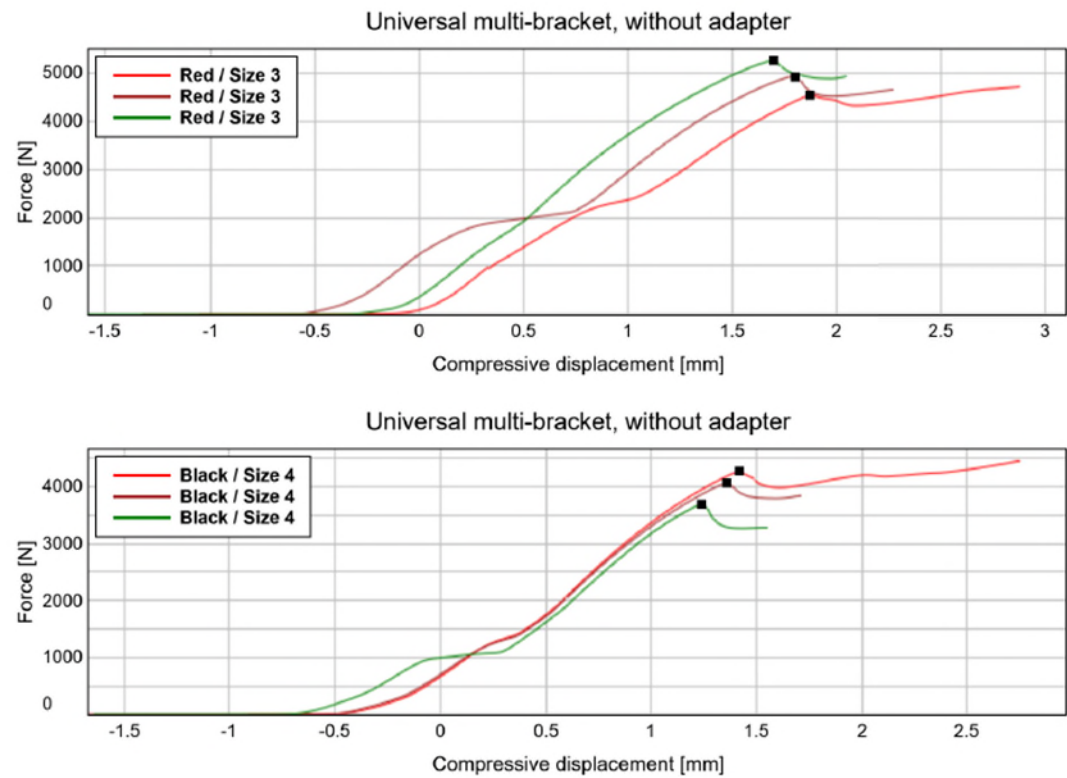
Universal multi-bracket, with 1 adapter	
Wedge type	Load @ 2 mm compressive displacement [kg]
Red Wedge / Size 3	239 (31)
Black Wedge / Size 4	235 (18)

Universal multi-bracket, with 2 adapters	
Wedge type	Load @ 2 mm compressive displacement [kg]
Red Wedge / Size 3	175 (43)
Black Wedge / Size 4	158 (5)

Universal multi-bracket, with 3 adapters	
Wedge type	Load @ 2 mm compressive displacement [kg]
Red Wedge / Size 3	121 (25)
Black Wedge / Size 4	85 (12)

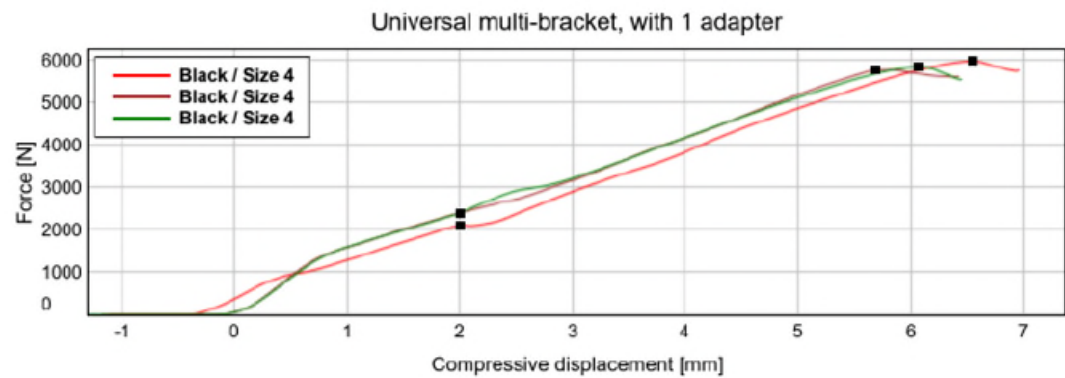
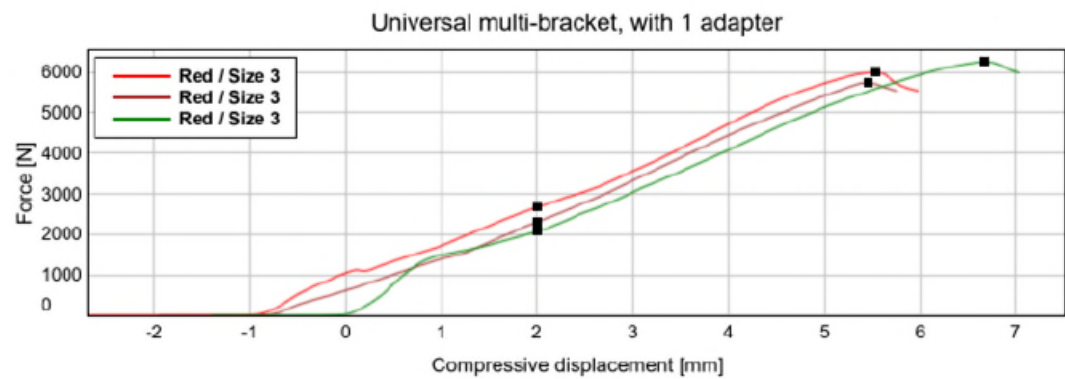
Detailed results including graphs and peak values can be found in enclosure 1.

Last test date	09/04/2025
Rate 1	5.00 mm/min



	Produkt ID	Force @ Break [N]	Displacement @ Break [mm]	Load @ Break [kg]
1	Red / Size 3	4531	2.93	461
2	Red / Size 3	4921	3.13	501
3	Red / Size 3	5238	3.29	533
4	Black / Size 4	4268	2.33	435
5	Black / Size 4	4056	3.03	413
6	Black / Size 4	3685	2.88	375

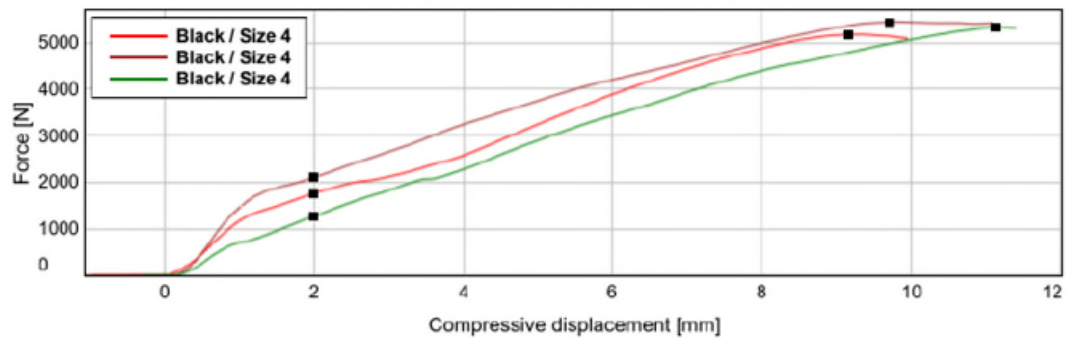
Last test date	09/04/2025
Rate 1	5.00 mm/min



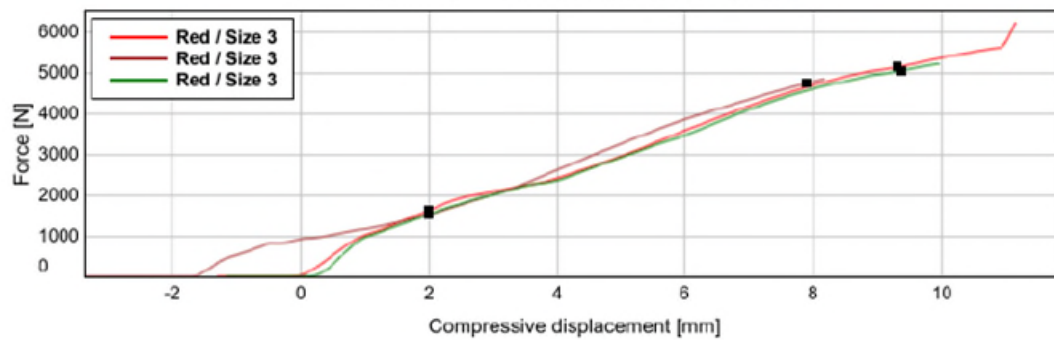
	Produkt ID	Force @ 2 mm [N]	Load @ 2 mm [kg]	Force @ Peak [N]	Compressive displacement @ Peak [mm]	Load @ Peak [kg]
1	Red / Size 3	2668	272	5989	5.5	610
2	Red / Size 3	2307	235	5740	5.4	585
3	Red / Size 3	2074	211	6249	6.7	636
4	Black / Size 4	2112	215	5971	6.5	608
5	Black / Size 4	2402	245	5775	5.7	588
6	Black / Size 4	2402	245	5838	6.1	595

Last test date	09/04/2025
Rate 1	5.00 mm/min

Universal multi-bracket, with 2 adapters

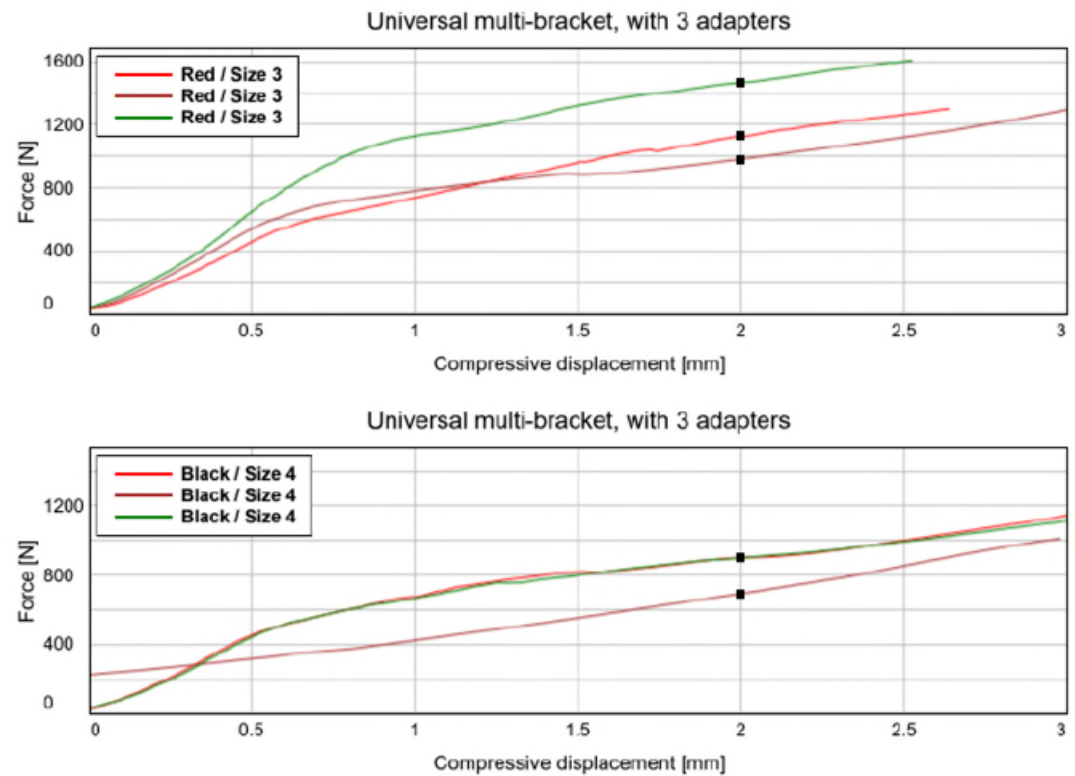


Universal multi-bracket, with 2 adapters



	Produkt ID	Force @ 2 mm [N]	Load @ 2 mm [kg]	Force @ Peak [N]	Compressive displacement @ Peak [mm]	Load @ Peak [kg]
1	Black / Size 4	1765	180	5172	9.2	527
2	Black / Size 4	2110	215	5446	9.7	555
3	Black / Size 4	1277	130	5326	11.1	542
4	Red / Size 3	1615	164	5137	9.3	523
5	Red / Size 3	1523	155	4743	7.9	483
6	Red / Size 3	1521	155	5050	9.4	514

Last test date	09/04/2025
Rate 1	5.00 mm/min



	Produkt ID	Force @ 2 mm [N]	Load @ 2 mm [kg]
1	Red / Size 3	1130	115
2	Red / Size 3	983	100
3	Red / Size 3	1468	149
4	Black / Size 4	901	92
5	Black / Size 4	693	71
6	Black / Size 4	899	92