

Sheet No 1 - 14b/1/18/S

Strength test. **FURNITURE FOR SEATING**

Name and symbol of furniture type: U_Floe UF W 30110 sofa
Weight of furniture in N: 415
Dimensions of furniture in mm: height: 770, width: 1905, depth: 690

Methodology: PN-EN 1728:2012

Requirements: PN-EN 16139:2013_07 - level 2

Stand ard point	Type of test	Test parameters	Test result
6.4	Seat and backrest static load test	Vertical force on seat 2000 N, 10 cycles Force perpendicular to backrest 700 N, 10 cycles	Positive
6.5	Front seat edge static load test	Vertical force on seat 1600 N 10 cycles	Positive
6.6	Backrest static load test with downward vertical force	Vertical force 900 N 10 cycles	Positive
6.7	Backrest static load test with forward horizontal force	Horizontal force 450 N 10 cycles	Positive
6.10	Armrest outward static load test	Horizontal force 900 N 10 cycles	Not applicable
6.11	Armrest downward static load test	Horizontal force 900 N 10 cycles	Not applicable
6.15	Front leg static load test	Force on seat 1800 N Horizontal force 620 N 10 cycles	Positive
6.16	Side leg static load test	Force on seat 1800 N Horizontal force 620 N 10 cycles	Positive

Tests carried out by: Karol Łabęda, MSc Eng.
Results checked by: Rafał Westerski, MSc Eng.

Sheet No 2 - 14b/1/18/S
Strength test. **FURNITURE FOR SEATING**

Name and symbol of furniture type: U_Floe UF W 30110 sofa

Methodology: PN-EN 1728:2012

Requirements: PN-EN 16139:2013_07 - level 2

Stand ard point	Type of test	Test parameters	Test result
6.17	Seat and backrest fatigue test	Vertical force on seat 1000 N Force perpendicular to backrest 300 N 200,000 cycles	Positive
6.18	Front seat edge fatigue test	Vertical force on seat 800 N 100,000 cycles	Positive
6.20	Armrest fatigue test	Force at 10° Force 400 N 60,000 cycles	Not applicable
6.24	Seat impact test	Drop height 300 mm 10 cycles	Positive
6.25	Backrest impact test	Drop height 330 mm 10 cycles	Positive
6.26	Armrest impact test	Drop height 330 mm 10 cycles	Not applicable
6.27	Free drop test	Drop height 450 mm 2 x 5 cycles	Positive
6.28	Free backward overturn test	5 cycles	Positive
6.30	Rolling resistance test	1000 cycles	Not applicable

Tests carried out by: Karol Łabęda, MSc Eng.

Results checked by: Rafał Westerski, MSc Eng.

Sheet No 3 - 14b/1/18/S
Stability test. FURNITURE FOR SEATING

Name and symbol of furniture type: U_Floe UF W 30110 sofa
Height of seat h_s in mm: 415

Methodology and requirements: PN-EN 1022:2007

Stand ard point	Type of test	Test parameters	Test result
6.2	Forward overbalancing, all furniture for seating	Vertical force 600 N Horizontal force 20 N 5 sec.	Positive
6.4	Sideward overbalancing, all furniture for seating without armrests	Vertical force 600 N Horizontal force 20 N 5 sec.	Positive
6.5	Sideward overbalancing, all furniture for seating with armrests	Vertical force 250 N + 350 N Horizontal force 20 N 5 sec.	Not applicable
6.6*	Backward overbalancing, all furniture for seating	Vertical force 600 N Horizontal force 170 N 5 sec.	Positive

*(6.6) Horizontal force: $F = (1000 - h_s) \cdot 0.2857$ [N] (rounded up to the nearest whole 10N)
Seat height $h_s \geq 720$ mm $F = 80$ N

Tests carried out by: Karol Łabęda, MSc Eng.

Results checked by: Rafał Westerski, MSc Eng.

Sheet No 4 - 14b/1/18/S
Strength test. FURNITURE FOR SEATING

Name and symbol of furniture type: U_Floe UF 100 sofa
Weight of furniture in N: 160
Dimensions of furniture in mm: height: 415, width: 670, depth: 610

Methodology: PN-EN 1728:2012

Requirements: PN-EN 16139:2013_07 - level 2

Stand ard point	Type of test	Test parameters	Test result
6.4	Seat and backrest static load test	Vertical force on seat 2000 N, 10 cycles	Positive
6.5	Front seat edge static load test	Vertical force on seat 1600 N 10 cycles	Positive
6.6	Backrest static load test with downward vertical force	Vertical force 900 N 10 cycles	Not applicable
6.7	Backrest static load test with forward horizontal force	Horizontal force 450 N 10 cycles	Not applicable
6.10	Armrest outward static load test	Horizontal force 900 N 10 cycles	Not applicable
6.11	Armrest downward static load test	Horizontal force 900 N 10 cycles	Not applicable
6.15	Front leg static load test	Force on seat 1800 N Horizontal force 620 N 10 cycles	Positive
6.16	Side leg static load test	Force on seat 1800 N Horizontal force 620 N 10 cycles	Positive

Tests carried out by: Karol Łabęda, MSc Eng.

Results checked by: Rafał Westerski, MSc Eng.

Sheet No 5 - 14b/1/18/S
Strength test. **FURNITURE FOR SEATING**

Name and symbol of furniture type: U_Floe UF 100 sofa

Methodology: PN-EN 1728:2012

Requirements: PN-EN 16139:2013_07 - level 2

Stand ard point	Type of test	Test parameters	Test result
6.17	Seat and backrest fatigue test	Vertical force on seat 1000 N 200,000 cycles	Positive
6.18	Front seat edge fatigue test	Vertical force on seat 800 N 100,000 cycles	Positive
6.20	Armrest fatigue test	Force at 10° Force 400 N 60,000 cycles	Not applicable
6.24	Seat impact test	Drop height 300 mm 10 cycles	Positive
6.25	Backrest impact test	Drop height 330 mm 10 cycles	Not applicable
6.26	Armrest impact test	Drop height 330 mm 10 cycles	Not applicable
6.27	Free drop test	Drop height 450 mm 2 x 5 cycles	Positive
6.28	Free backward overturn test	5 cycles	Positive
6.30	Rolling resistance test	1000 cycles	Not applicable

Tests carried out by: Karol Łabęda, MSc Eng.

Results checked by: Rafał Westerski, MSc Eng.

Sheet No 6 - 14b/1/18/S
Stability test. **FURNITURE FOR SEATING**

Name and symbol of furniture type: U_Floe UF 100 sofa
Height of seat h_s in mm: 415

Methodology and requirements: PN-EN 1022:2007

Stand ard point	Type of test	Test parameters	Test result
6.2	Forward overbalancing, all furniture for seating	Vertical force 600 N Horizontal force 20 N 5 sec.	Positive
6.4	Sideward overbalancing, all furniture for seating without armrests	Vertical force 600 N Horizontal force 20 N 5 sec.	Positive
6.5	Sideward overbalancing, all furniture for seating with armrests	Vertical force 250 N + 350 N Horizontal force 20 N 5 sec.	Not applicable
6.6*	Backward overbalancing, all furniture for seating with backrest	Vertical force 600 N Horizontal force 170 N 5 sec.	Not applicable

*(6.6) Horizontal force: $F = (1000 - h_s) \cdot 0.2857$ [N] (rounded up to the nearest whole 10N)
Seat height $h_s \geq 720$ mm $F = 80$ N

Tests carried out by: Karol Łabęda, MSc Eng.
Results checked by: Rafał Westerski, MSc Eng.

Sheet No 7 - 14b/1/18/S
Strength test. FURNITURE FOR SEATING

Name and symbol of furniture type: U_Floe UF BOX table
Weight of furniture in N: 225
Dimensions of furniture in mm: height: 770, width: 955, depth: 690

Methodology: PN-EN 1730:2013_04

Requirements: PN-EN 12521:2016_02

Stand ard point	Type of test	Test parameters	Test result
6.2	Horizontal static load test	Horizontal force 300 N 10 cycles	Positive
6.3.1	Vertical static load test	Vertical force 250 N 10 cycles	Positive
6.4.2	Horizontal fatigue test along the longer side	Load 50 kg Horizontal force 200 N 5,000 cycles	Positive
6.5	Vertical fatigue test	Vertical force 300 N 10,000 cycles	Not applicable
6.6	Vertical impact test	Vertical force 250 N 140 mm 10 cycles	Positive
7.2	Stability affected by vertical load	Vertical force 200 N	Positive

Tests carried out by: Karol Łabęda, MSc Eng.

Results checked by: Rafał Westerski, MSc Eng.

Sheet No 8 - 14b/1/18/S
Stability test. FURNITURE FOR SEATING

Name and symbol of furniture type: U_Floe UF BOX sofa
Height of seat h_s in mm: 415

Methodology and requirements: PN-EN 1022:2007

Stand ard point	Type of test	Test parameters	Test result
6.2	Forward overbalancing, all furniture for seating	Vertical force 600 N Horizontal force 20 N 5 sec.	Positive
6.4	Sideward overbalancing, all furniture for seating without armrests	Vertical force 600 N Horizontal force 20 N 5 sec.	Positive
6.5	Sideward overbalancing, all furniture for seating with armrests	Vertical force 250 N + 350 N Horizontal force 20 N 5 sec.	Not applicable
6.6*	Backward overbalancing, all furniture for seating with backrest	Vertical force 600 N Horizontal force 170 N 5 sec.	Not applicable

*(6.6) Horizontal force: $F = (1000 - h_s) \cdot 0.2857$ [N] (rounded up to the nearest whole 10N)
Seat height $h_s \geq 720$ mm $F = 80$ N

Tests carried out by: Karol Łabęda, MSc Eng.
Results checked by: Rafał Westerski, MSc Eng.

Sheet No 9 - 14b/1/18/S
Strength test. FURNITURE FOR SEATING

Name and symbol of furniture type: U_Floe UF W 100 sofa
Weight of furniture in N: 130
Dimensions of furniture in mm: height: 420, width: 620, depth: 660

Methodology: PN-EN 1728:2012

Requirements: PN-EN 16139:2013_07 - level 2

Stand ard point	Type of test	Test parameters	Test result
6.4	Seat and backrest static load test	Vertical force on seat 2000 N, 10 cycles Force perpendicular to backrest 700 N, 10 cycles	Positive
6.5	Front seat edge static load test	Vertical force on seat 1600 N 10 cycles	Positive
6.6	Backrest static load test with downward vertical force	Vertical force 900 N 10 cycles	Positive
6.7	Backrest static load test with forward horizontal force	Horizontal force 450 N 10 cycles	Positive
6.10	Armrest outward static load test	Horizontal force 900 N 10 cycles	Not applicable
6.11	Armrest downward static load test	Horizontal force 900 N 10 cycles	Not applicable
6.15	Front leg static load test	Force on seat 1800 N Horizontal force 620 N 10 cycles	Positive
6.16	Side leg static load test	Force on seat 1800 N Horizontal force 620 N 10 cycles	Positive

Tests carried out by: Karol Łabęda, MSc Eng.
Results checked by: Rafał Westerski, MSc Eng.

Sheet No 10 - 14b/1/18/S
Strength test. FURNITURE FOR SEATING

Name and symbol of furniture type: U_Floe UF W 100 sofa

Methodology: PN-EN 1728:2012

Requirements: PN-EN 16139:2013_07 - level 2

Stand ard point	Type of test	Test parameters	Test result
6.17	Seat and backrest fatigue test	Vertical force on seat 1000 N Force perpendicular to backrest 300 N 200,000 cycles	Positive
6.18	Front seat edge fatigue test	Vertical force on seat 800 N 100,000 cycles	Positive
6.20	Armrest fatigue test	Force at 10° Force 400 N 60,000 cycles	Not applicable
6.24	Seat impact test	Drop height 300 mm 10 cycles	Positive
6.25	Backrest impact test	Drop height 330 mm 10 cycles	Positive
6.26	Armrest impact test	Drop height 330 mm 10 cycles	Not applicable
6.27	Free drop test	Drop height 450 mm 2 x 5 cycles	Positive
6.28	Free backward overturn test	5 cycles	Positive
6.30	Rolling resistance test	1000 cycles	Not applicable

Tests carried out by: Karol Łabęda, MSc Eng.

Results checked by: Rafał Westerski, MSc Eng.

Sheet No 11 - 14b/1/18/S
Stability test. FURNITURE FOR SEATING

Name and symbol of furniture type: U_Floe UF W 100 sofa
Height of seat h_s in mm: 420

Methodology and requirements: PN-EN 1022:2007

Stand ard point	Type of test	Test parameters	Test result
6.2	Forward overbalancing, all furniture for seating	Vertical force 600 N Horizontal force 20 N 5 sec.	Positive
6.4	Sideward overbalancing, all furniture for seating without armrests	Vertical force 600 N Horizontal force 20 N 5 sec.	Positive
6.5	Sideward overbalancing, all furniture for seating with armrests	Vertical force 250 N + 350 N Horizontal force 20 N 5 sec.	Not applicable
6.6*	Backward overbalancing, all furniture for seating with backrest	Vertical force 600 N Horizontal force 170 N 5 sec.	Not applicable

*(6.6) Horizontal force: $F = (1000 - h_s) \cdot 0.2857$ [N] (rounded up to the nearest whole 10N)
Seat height $h_s \geq 720$ mm $F = 80$ N

Tests carried out by: Karol Łabęda, MSc Eng.
Results checked by: Rafał Westerski, MSc Eng.

Sheet No 12 - 14b/1/18/S
Strength test. FURNITURE FOR SEATING

Name and symbol of furniture type: U_Floe UF W 121 sofa
Weight of furniture in N: 225
Dimensions of furniture in mm: height: 770, width: 940, depth: 670

Methodology: PN-EN 1728:2012

Requirements: PN-EN 16139:2013_07 - level 2

Stand ard point	Type of test	Test parameters	Test result
6.4	Seat and backrest static load test	Vertical force on seat 2000 N, 10 cycles	Positive
6.5	Front seat edge static load test	Vertical force on seat 1600 N 10 cycles	Positive
6.6	Backrest static load test with downward vertical force	Vertical force 900 N 10 cycles	Not applicable
6.7	Backrest static load test with forward horizontal force	Horizontal force 450 N 10 cycles	Not applicable
6.10	Armrest outward static load test	Horizontal force 900 N 10 cycles	Not applicable
6.11	Armrest downward static load test	Horizontal force 900 N 10 cycles	Not applicable
6.15	Front leg static load test	Force on seat 1800 N Horizontal force 620 N 10 cycles	Positive
6.16	Side leg static load test	Force on seat 1800 N Horizontal force 620 N 10 cycles	Positive

Tests carried out by: Karol Łabęda, MSc Eng.

Results checked by: Rafał Westerski, MSc Eng.

Sheet No 13 - 14b/1/18/S
Strength test. **FURNITURE FOR SEATING**

Name and symbol of furniture type: U_Floe UF W 121 sofa

Methodology: PN-EN 1728:2012

Requirements: PN-EN 16139:2013_07 - level 2

Stand ard point	Type of test	Test parameters	Test result
6.17	Seat and backrest fatigue test	Vertical force on seat 1000 N 200,000 cycles	Positive
6.18	Front seat edge fatigue test	Vertical force on seat 800 N 100,000 cycles	Positive
6.20	Armrest fatigue test	Force at 10° Force 400 N 60,000 cycles	Not applicable
6.24	Seat impact test	Drop height 300 mm 10 cycles	Positive
6.25	Backrest impact test	Drop height 330 mm 10 cycles	Not applicable
6.26	Armrest impact test	Drop height 330 mm 10 cycles	Not applicable
6.27	Free drop test	Drop height 450 mm 2 x 5 cycles	Positive
6.28	Free backward overturn test	5 cycles	Positive
6.30	Rolling resistance test	1000 cycles	Not applicable

Tests carried out by: Karol Łabęda, MSc Eng.

Results checked by: Rafał Westerski, MSc Eng.

Sheet No 14 - 14b/1/18/S
Stability test. FURNITURE FOR SEATING

Name and symbol of furniture type: U_Floe UF W 121 sofa
Height of seat h_s in mm: 420

Methodology and requirements: PN-EN 1022:2007

Stand ard point	Type of test	Test parameters	Test result
6.2	Forward overbalancing, all furniture for seating	Vertical force 600 N Horizontal force 20 N 5 sec.	Positive
6.4	Sideward overbalancing, all furniture for seating without armrests	Vertical force 600 N Horizontal force 20 N 5 sec.	Not applicable
6.5	Sideward overbalancing, all furniture for seating with armrests	Vertical force 250 N + 350 N Horizontal force 20 N 5 sec.	Positive
6.6*	Backward overbalancing, all furniture for seating with backrest	Vertical force 600 N Horizontal force 170 N 5 sec.	Not applicable

*(6.6) Horizontal force: $F = (1000 - h_s) \cdot 0.2857$ [N] (rounded up to the nearest whole 10N)
Seat height $h_s \geq 720$ mm $F = 80$ N

Tests carried out by: Karol Łabęda, MSc Eng.
Results checked by: Rafał Westerski, MSc Eng.

Sheet No 15 - 14b/1/18/S
Strength test. FURNITURE FOR SEATING

Name and symbol of furniture type: U_Floe UF W 31000R sofa
Weight of furniture in N: 340
Dimensions of furniture in mm: height: 710, width: 2000, depth: 660

Methodology: PN-EN 1728:2012

Requirements: PN-EN 16139:2013_07 - level 2

Stand ard point	Type of test	Test parameters	Test result
6.4	Seat and backrest static load test	Vertical force on seat 2000 N, 10 cycles Force perpendicular to backrest 700 N, 10 cycles	Positive
6.5	Front seat edge static load test	Vertical force on seat 1600 N 10 cycles	Positive
6.6	Backrest static load test with downward vertical force	Vertical force 900 N 10 cycles	Not applicable
6.7	Backrest static load test with forward horizontal force	Horizontal force 450 N 10 cycles	Not applicable
6.10	Armrest outward static load test	Horizontal force 900 N 10 cycles	Positive
6.11	Armrest downward static load test	Horizontal force 900 N 10 cycles	Positive
6.15	Front leg static load test	Force on seat 1800 N Horizontal force 620 N 10 cycles	Positive
6.16	Side leg static load test	Force on seat 1800 N Horizontal force 620 N 10 cycles	Positive

Tests carried out by: Karol Łabęda, MSc Eng.
Results checked by: Rafał Westerski, MSc Eng.

Sheet No 16 - 14b/1/18/S
Strength test. **FURNITURE FOR SEATING**

Name and symbol of furniture type: U_Floe UF W 31000R sofa

Methodology: PN-EN 1728:2012

Requirements: PN-EN 16139:2013_07 - level 2

Stand ard point	Type of test	Test parameters	Test result
6.17	Seat and backrest fatigue test	Vertical force on seat 1000 N Force perpendicular to backrest 300 N 200,000 cycles	Positive
6.18	Front seat edge fatigue test	Vertical force on seat 800 N 100,000 cycles	Positive
6.20	Armrest fatigue test	Force at 10° Force 400 N 60,000 cycles	Positive
6.24	Seat impact test	Drop height 300 mm 10 cycles	Positive
6.25	Backrest impact test	Drop height 330 mm 10 cycles	Not applicable
6.26	Armrest impact test	Drop height 330 mm 10 cycles	Positive
6.27	Free drop test	Drop height 450 mm 2 x 5 cycles	Positive
6.28	Free backward overturn test	5 cycles	Not applicable
6.30	Rolling resistance test	1000 cycles	Not applicable

Tests carried out by: Karol Łabęda, MSc Eng.

Results checked by: Rafał Westerski, MSc Eng.

Sheet No 17 - 14b/1/18/S
Stability test. FURNITURE FOR SEATING

Name and symbol of furniture type: U_Floe UF W 31000R sofa
Height of seat h_s in mm: 415

Methodology and requirements: PN-EN 1022:2007

Stand ard point	Type of test	Test parameters	Test result
6.2	Forward overbalancing, all furniture for seating	Vertical force 600 N Horizontal force 20 N 5 sec.	Positive
6.4	Sideward overbalancing, all furniture for seating without armrests	Vertical force 600 N Horizontal force 20 N 5 sec.	Positive
6.5	Sideward overbalancing, all furniture for seating with armrests	Vertical force 250 N + 350 N Horizontal force 20 N 5 sec.	Positive
6.6*	Backward overbalancing, all furniture for seating with backrest	Vertical force 600 N Horizontal force 170 N 5 sec.	Not applicable

*(6.6) Horizontal force: $F = (1000 - h_s) \cdot 0.2857$ [N] (rounded up to the nearest whole 10N)
Seat height $h_s \geq 720$ mm $F = 80$ N

Tests carried out by: Karol Łabęda, MSc Eng.
Results checked by: Rafał Westerski, MSc Eng.