

Test Report



Number	18-001622-PR01 (PB-K99-05-en-02)
Owner (Client)	SRB SARL 16, rue du Saint-Antoine 98800 Nouméa New Caledonia
Product	Safety Railings
Designation	Shipping name: F50 Horizon Frame-External
Details	Overall dimensions (W x H) 2200 mm x 1210 mm; Glass configuration TSG 5 mm / PVB film 1.52 mm / TSG 5 mm; Thickness 11.28 mm
Special features	-/-
Order	Testing of Safety Rails
Contents	The test report contains a total of 4 pages and annexe (6 pages).
Note	Replaces Test Report: no. 18-001622-PR01 PB-K99-05-en-01 dated 23.07.2018. The test report shall only be published in its unabbreviated form. The "Guidance Sheet for the Use of ift Test Documents" applies.

1 Execution

1.1 Sampling and product description

The following details have been presented to ift:

Sampler: ALUMINCO S.A., 32011 Inofita Viotias (Greece)

Evidence: ift Rosenheim did not receive a sampling report.

Date of delivery: 18.06.2018

Description: For product identification the specimen tested is described/represented in the Annex. Material specifications, item numbers and other company-specific descriptions are details provided by the client and will be checked for plausibility by ift.

Test specimen no.: 18-001622-PK02 / WE: 46113-001

1.2 Basic documents of the procedures

NF P 01-013:1988-08

Railings test – Methodes and criteria

NF P 08-301:1991-01

Vertical building elements - Impact resistance tests - Impact bodies - Principle and general test procedures

ISO 7892:1988-08

Vertical building elements - impact resistance tests - Impact bodies and general test procedures

1.3 Short description of the procedures

The test shall consist of subjecting the railings unit to the effect of impacts represented conventionally by the pendulum impact of impacting bodies. The test shall be carried out on the filling of the railing with a 50 kg soft body from a drop height of 1200 mm. The impact shall be applied to the geometrical centre of the infill unit under test in the part lying between the normal floor level and the handrail.

The pendulum test is considered passed if no parts dangerous to persons fall into the traffic route.

2 Detailed results

Dynamic method of testign railings according NF P 01-013

Project-No.	18-001622-PR01
Basis	ISO 7892:1988-08 Vertical building elements impact resistance tests Impact bodies and general test procedures NF P 01-013:1988-08 Railings test - Methods and criteria NF P 08-301:1991-01 Vertical building elements - Impact resistance tests - Impact bodies - Principle and general test procedures
Test equipment	Pst/021702 - Pendelschlag fahrbar m. Gummirad s. A. 2 2658 Zub/029198 - Glaskugelsack 50 kg mit 3 mm Kugeln
Test specimen	F50 Hoizon Frame-External
Test specimen No.	46113-001
Date of test	20.07.2018
Test engineer in charge	Stefan Hehn
Test engineer	Stefan Hehn, Frank Zirbel

Implementation of tests Deviations

There have been no deviations from the test method as specified in the standard/basis.

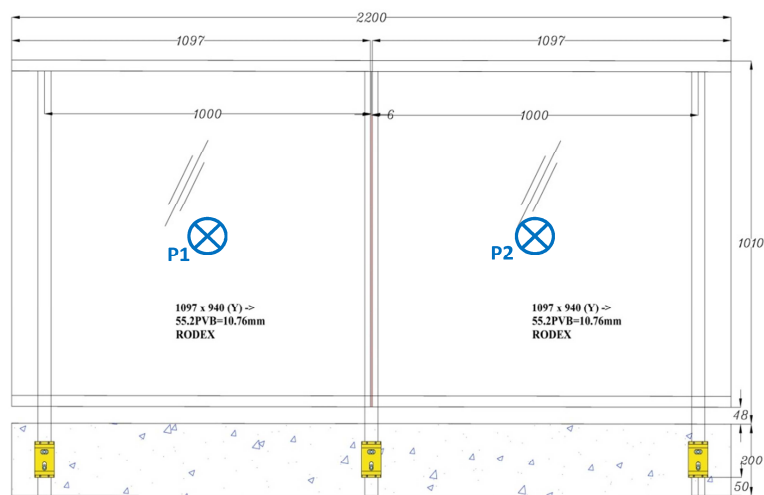
Ambient conditions

Temperature 22,9 °C Air humidity 54,4 %

The ambient conditions are in accordance with the standard/basis requirements.

Measurement data/Results

schematic representation of the specimen and the point of impact



Pendulum	Drop height in mm	point of impact on the attack side	Remark
1	1200	P1	Extraction of the screws by approx. 2 mm from cement camber; no danger from falling parts
2	1200	P2	Extraction of the screws by approx. 3 mm from cement camber; no danger from falling parts

3 Summary

3.1 Result

Pendulum Test according NF P 01-013:1988-08
Drop height 1200 mm: Passed

3.2 Instructions for use

This test/evaluation does not allow any statement to be made on further characteristics of the present structure regarding performance and quality, in particular the effects of weathering and ageing and possible previous defects.

The test was performed according to standard and the details for identification of the test specimen are complete; on the basis of this Test Report an "ift-Nachweis" (Evidence) can be issued.

ift Rosenheim
29.08.2018

A handwritten signature in blue ink, appearing to be 'F. Zirbel'.

Frank Zirbel, Dipl.-Ing. (FH)
Deputy Head of Testing Department
Security/Safety Testing

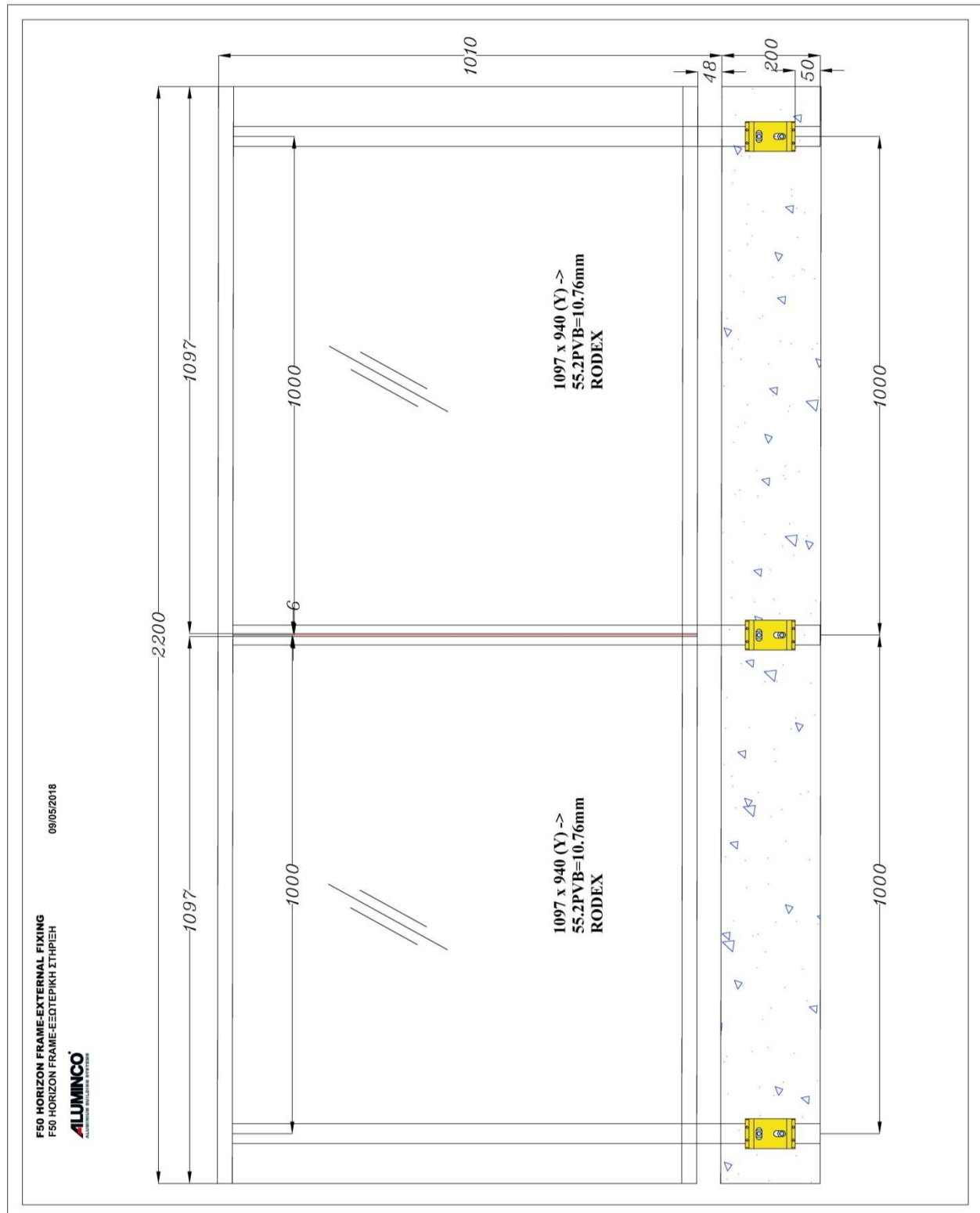
A handwritten signature in blue ink, appearing to be 'Stefan Hehn'.

Stefan Hehn, Dipl.-Ing. (FH)
Operating Testing Officer
Material Testing

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Glass configuration 55.4 (5 mm TSG / 1.52 mm PVB / 5 mm TSG) was tested

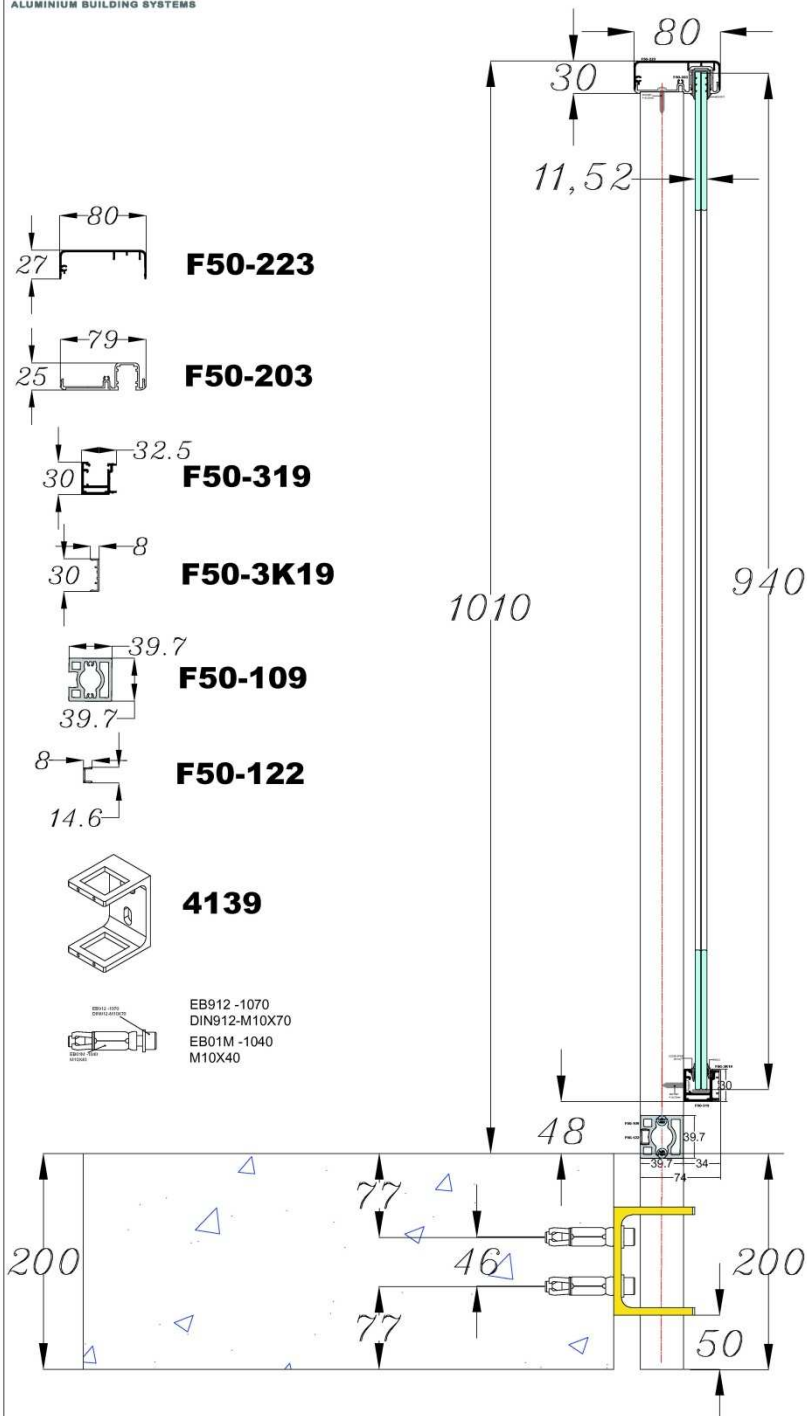
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F50 HORIZON FRAME-EXTERNAL FIXING
F50 HORIZON FRAME-ΕΞΩΤΕΡΙΚΗ ΣΤΗΡΙΞΗ

09/05/2018

ALUMINCO
 ALUMINIUM BUILDING SYSTEMS




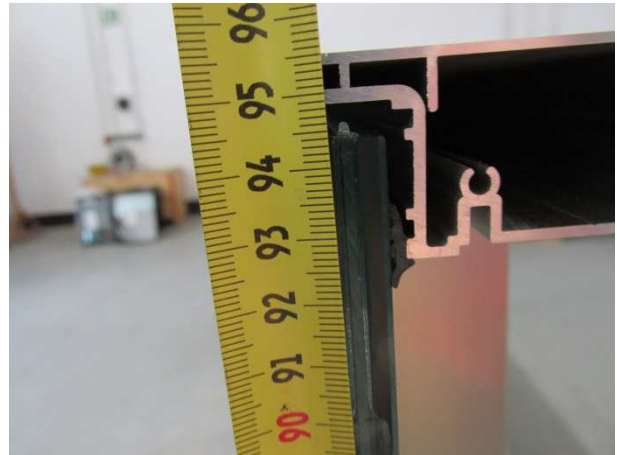
Picture 1 View of the specimen



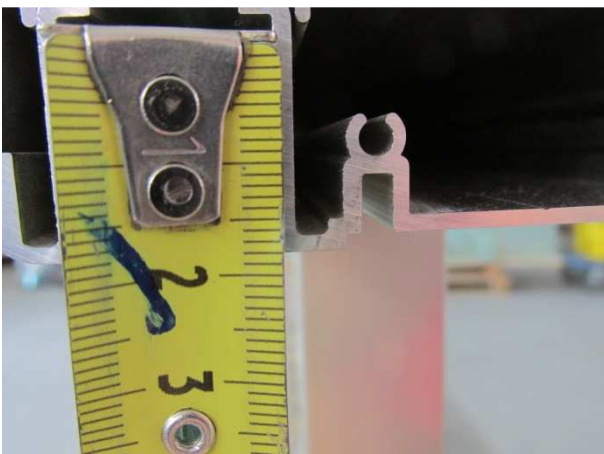
Picture 2 Measured thickness



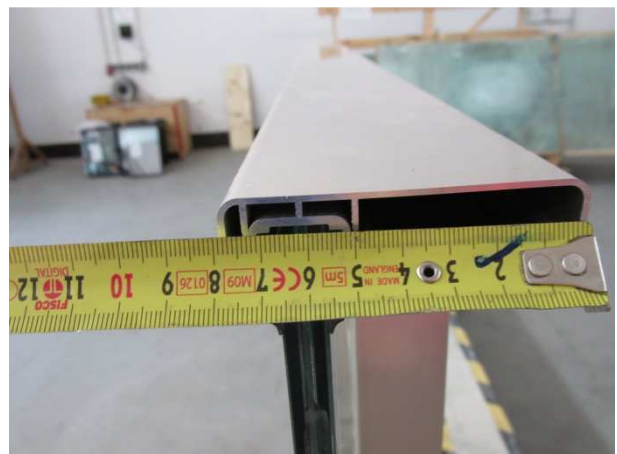
Picture 3 Width of laminated glass



Picture 4 Height of laminated glass



Picture 5 Glass debonding



Picture 6 Width of handrail

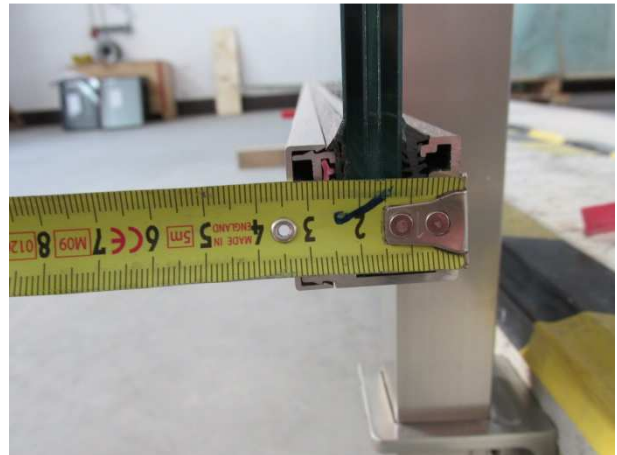
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Picture 7 Height of handrail



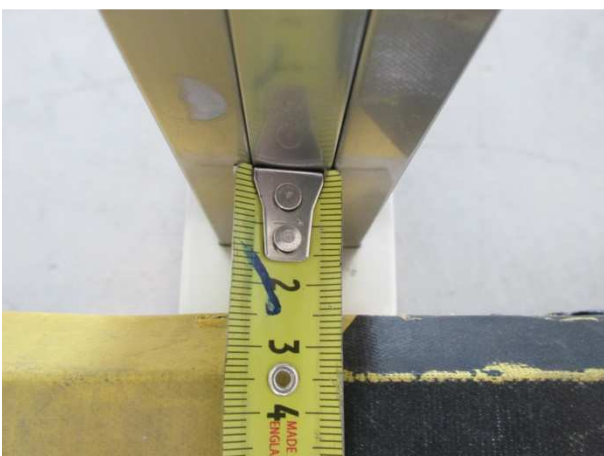
Picture 8 Width of aluminium profile



Picture 9 Height of aluminium profile



Picture 10 Sideways overhang of the glass



Picture 11 Distance of the profile to the cement camber



Picture 12 Railing holder

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Picture 13 Railing holder



Picture 14 Screw pull-out after the first pendulum impact



Picture 15 Screw pull-out after the second pendulum impact



Picture 16 Side-view after the second pendulum impact



Picture 17 Breakage typical for TSG



Picture 18 Measured glass construction with 4 films