ift-Nachweis

Number	23-004127-PR02 (NW-K26-09-en-03)
Owner	CELO Befestigungssysteme GmbH Industriestraße 6 86551 Aichach Germany
Product	**Fasteners for window installation**
Set designation	Window-fixing set FB (FL 10-190 and DS 7,0/11,5x280)
Designation	**Long-dowel:** FL 10-190 **Spacer screw:** DS 7,0/11,5x280 **Fixing base:** Schlagmann POROTON®-S8® Objektziegel (tile), Wienerberger Poroton-Planziegel® - T8® (Poroton flat brick), Schlagmann Poroton® - S7®, Wienerberger Poroton® - S9®, Schlagmann Poroton® -T7®, Xella Porenbeton Ytong PP 2-0,35 (aerated concrete)
Tested distance "e":	20 mm

Results

Determination of the load-bearing capacity with centric tension and with transverse load rectangular to window level at a distance "e" as per ift-Guideline MO-02/1:2015-06, Section 4.1.3.1 and 4.1.3.3

(Detailed results according to ift-Guideline MO-02/1, see page 2 - 7)

ift Rosenheim
06.10.2025

Michael Freinberger, Dipl.-Ing. (FH)
Head of Testing Department
Material Testing

Christian Neudecker
Operating Testing Officer
Material Testing

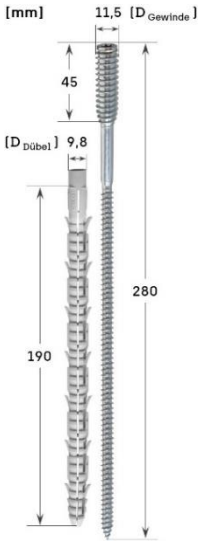
Basis

ift Guideline MO-02/1:2015-06

Test report 23-004127-PR01
PB-K26-09-de-03

Replaces ift-Nachweis:
23-004127-PR02 NW-K26-09-en-02 vom 31.10.2024.

Representation



Instructions for use

The results obtained can be used as evidence in accordance with the above basis.

Validity

There is no time limit.

When using this document the up-to-dateness of above basis and the conformity of the product have to be observed.

The data and results given relate solely to the tested/described specimen.

This test does not allow any statement to be made on any further characteristics regarding performance and quality of the product presented; in particular the effects of weathering and ageing were not taken into account.

Notes on publication

The ift-Guidance Sheet "Conditions and Guidance for the Use of ift Test Documents" applies. The cover sheet can be used as an abstract.

Identity-Check

www.ift-rosenheim.de/ift-geprueft
ID: 891-9DB0F

ift Rosenheim GmbH
Theodor-Gietl-Str. 7-9
83026 Rosenheim
GERMANY

+49 8031 261-0
info@ift-rosenheim.de
www.ift-rosenheim.de

Notified Body 0757
PÜZ-Stelle BAY 18

Accredited Test Laboratory
EN ISO/IEC 17025

ilac-MRA DAkkS Deutsche Akkreditierungsstelle D-PL-11349-01-00

1 Summary

1.1 Results - Determination of load capacity of fastening system as per ift-Guideline MO-02/1 Section 4.1.3.1, Section 4.1.3.3

Fastening system	Tested load case	Distance "e"	Characteristic load-bearing capacity F_{Rk} in kN[1] at deflection δ_F in mm			
			$F_{Rk,1mm}$	$F_{Rk,2mm}$	$F_{Rk,3mm}$	$F_{Rk,max}$
Variant 01: Window-fixing set FB (FL 10-190 and DS 7,0/11,5x280) in fixing base Schlagmann Poroton® -S8®	Extract	---	---	---	---	**1.33** [1) 2)]
	Negative wind pressure	20 mm	0.08	**0.40**	0.62	**1.36** [1) 2)]

1) Characteristic load which ensures with a 75 % probability that 95 % of the values are higher than this (5 % fractiles)

2) A correction factor, determined from the average standardized lithographic strength f_b divided by the actual lithographic strength of the tested samples $f_{b,test}$ was taken into account.

1.1.1 Requirements as per ift-Guideline MO-02/1 Section 5.1 in [kN]

Fastening system	Tested load case	Distance "e"	$F_{Rk,\ 2mm} = F_{Rd,\ 2mm} = F_{empf,\ 2mm}$	$F_{Rk,max}$	$F_{Rd,max}$	$F_{empf,max}$	authoritative F_{empf}
Variant 01: Window-fixing set FB FB (FL 10-190 and DS 7,0/11,5x280) in fixing base Schlagmann Poroton® -S8®	Negative wind pressure	20 mm	0.40	1.36	0.54	**0.39**	**0.39** [3)]

3) Requirement according to ift-Guideline MO-02/1 Section 5.1 $F_{empf,\ max} \geq F_{empf,\ \delta}$ not fulfilled

Design load (fracture brick) $F_{Rd,max} = F_{RK,max} / \gamma_m$ with $\gamma_m = 2.5$

Recommended load (service load) $F_{empf,max} = F_{Rd,max} / \gamma_F$ with $\gamma_F = 1.4$

Condition according to ift-Guideline MO-02/1 Clause 5.1 Equation (7) $F_{empf,max} \geq F_{empf,\delta}$

1.2 Results - Determination of load capacity of fastening system as per ift-Guideline MO-02/1 Section 4.1.3.1, Section 4.1.3.3

Fastening system	Tested load case	Distance "e"	Characteristic load-bearing capacity F_{Rk} in kN[1] at deflection δ_F in mm			
			$F_{Rk,1mm}$	$F_{Rk,2mm}$	$F_{Rk,3mm}$	$F_{Rk,max}$
Variant 02: Window-fixing set FB FB (FL 10-190 and DS 7,0/11,5x280) in fixing base Wienerberger Poroton-Planziegel®- T8®	Extract	---	---	---	---	**1.10** [1) 2)]
	Negative wind pressure	20 mm	0.16	0.31	**0.55**	**1.01** [1) 2)]

1) Characteristic load which ensures with a 75 % probability that 95 % of the values are higher than this (5 % fractiles)

2) A correction factor, determined from the average standardized lithographic strength f_b divided by the actual lithographic strength of the tested samples $f_{b,test}$ was taken into account.

1.2.1 Requirements as per ift-Guideline MO-02/1 Section 5.1 in [kN]

Fastening system	Tested load case	Distance "e"	$F_{Rk,\ 3mm}$ = $F_{Rd,\ 3mm}$ = $F_{empf,\ 3mm}$	$F_{Rk,max}$	$F_{Rd,max}$	$F_{empf,max}$	authoritative F_{empf}
Variant 02: Window-fixing set FB FB (FL 10-190 and DS 7,0/11,5x280) in fixing base Wienerberger Poroton-Planziegel®- T8®	Negative wind pressure	20 mm	0.55	1.01	0.40	**0.29**	**0.29** [3)]

3) Requirement according to ift-Guideline MO-02/1 Section 5.1 $F_{empf,\ max} \geq F_{empf,\ \delta}$ not fulfilled

Design load (fracture brick) $F_{Rd,max} = F_{RK,max} / \gamma_m$ with $\gamma_m = 2.5$

Recommended load (service load) $F_{empf,max} = F_{Rd,max} / \gamma_F$ with $\gamma_F = 1.4$

Condition according to ift-Guideline MO-02/1 Clause 5.1 Equation (7) $F_{empf,max} \geq F_{empf,\delta}$

1.3 Results - Determination of load capacity of fastening system as per ift-Guideline MO-02/1 Section 4.1.3.1, Section 4.1.3.3

Fastening system	Tested load case	Distance "e"	Characteristic load-bearing capacity F_{Rk} in kN[1] at deflection δ_F in mm			
			$F_{Rk,1mm}$	$F_{Rk,2mm}$	$F_{Rk,3mm}$	$F_{Rk,max}$
Variant 03: Window-fixing set FB FB (FL 10-190 and DS 7,0/11,5x280) in fixing base Schlagmann Poroton® -S7®-Objektziegel	Extract	---	---	---	---	**1.03** [1) 2)]
	Negative wind pressure	20 mm	0.00	0.29	**0.51**	**1.34** [1) 2)]

1) Characteristic load which ensures with a 75 % probability that 95 % of the values are higher than this (5 % fractiles)

2) A correction factor, determined from the average standardized lithographic strength f_b divided by the actual lithographic strength of the tested samples $f_{b,test}$ was taken into account.

1.3.1 Requirements as per ift-Guideline MO-02/1 Section 5.1 in [kN]

Fastening system	Tested load case	Distance "e"	$F_{Rk,3mm} = F_{Rd,3mm} = F_{empf,3mm}$	$F_{Rk,max}$	$F_{Rd,max}$	$F_{empf,max}$	authoritative F_{empf}
Variant 03: Window-fixing set FB FB (FL 10-190 and DS 7,0/11,5x280) in fixing base Schlagmann Poroton® -S7®-Objektziegel	Negative wind pressure	20 mm	0.51	1.34	0.54	**0.38**	**0.38** [3)]

3) Requirement according to ift-Guideline MO-02/1 Section 5.1 $F_{empf,\,max} \geq F_{empf,\,\delta}$ not fulfilled

Design load (fracture brick) $F_{Rd,max} = F_{RK,max} / \gamma_m$ with $\gamma_m = 2.5$

Recommended load (service load) $F_{empf,max} = F_{Rd,max} / \gamma_F$ with $\gamma_F = 1.4$

Condition according to ift-Guideline MO-02/1 Clause 5.1 Equation (7) $F_{empf,max} \geq F_{empf,\delta}$

1.4 Results - Determination of load capacity of fastening system as per ift-Guideline MO-02/1 Section 4.1.3.1, Section 4.1.3.3

Fastening system	Tested load case	Distance "e"	Characteristic load-bearing capacity F_{Rk} in kN[1] at deflection δ_F in mm			
			$F_{Rk,1mm}$	$F_{Rk,2mm}$	$F_{Rk,3mm}$	$F_{Rk,max}$
Variant 04: Window-fixing set FB FB (FL 10-190 and DS 7,0/11,5x280) in fixing base Wienerberger Poroton® -S9®	Extract	---	---	---	---	**0.97** [1) 2)]
	Negative wind pressure	20 mm	0.03	0.20	**0.37**	**1.74** [1) 2)]

1) Characteristic load which ensures with a 75 % probability that 95 % of the values are higher than this (5 % fractiles)

2) A correction factor, determined from the average standardized lithographic strength f_b divided by the actual lithographic strength of the tested samples $f_{b,test}$ was taken into account.

1.4.1 Requirements as per ift-Guideline MO-02/1 Section 5.1 in [kN]

Fastening system	Tested load case	Distance "e"	$F_{Rk,\ 3mm}$ = $F_{Rd,\ 3mm}$ = $F_{empf,\ 3mm}$	$F_{Rk,max}$	$F_{Rd,max}$	$F_{empf,max}$	authoritative F_{empf}
Variant 04: Window-fixing set FB FB (FL 10-190 and DS 7,0/11,5x280) in fixing base Wienerberger Poroton® -S9®	Negative wind pressure	20 mm	**0.37**	1.74	0.70	0.50	**0.37**

Design load (fracture brick) $F_{Rd,max} = F_{RK,max} / \gamma_m$ with $\gamma_m = 2.5$

Recommended load (service load) $F_{empf,max} = F_{Rd,max} / \gamma_F$ with $\gamma_F = 1.4$

Condition according to ift-Guideline MO-02/1 Clause 5.1 Equation (7) $F_{empf,max} \geq F_{empf,\delta}$

1.5 Results - Determination of load capacity of fastening system as per ift-Guideline MO-02/1 Section 4.1.3.1, Section 4.1.3.3

Fastening system	Tested load case	Distance "e"	Characteristic load-bearing capacity F_{Rk} in kN[1] at deflection δ_F in mm			
			$F_{Rk,1mm}$	$F_{Rk,2mm}$	$F_{Rk,3mm}$	$F_{Rk,max}$
Variant 05: Window-fixing set FB FB (FL 10-190 and DS 7,0/11,5x280) in fixing base Schlagmann Poroton® -T7®	Extract	---	---	---	---	**0.23** [1) 2)]
	Negative wind pressure	20 mm	0.03	0.06	**0.28**	**0.66** [1) 2)]

1) Characteristic load which ensures with a 75 % probability that 95 % of the values are higher than this (5 % fractiles)

2) A correction factor, determined from the average standardized lithographic strength f_b divided by the actual lithographic strength of the tested samples $f_{b,test}$ was taken into account.

1.5.1 Requirements as per ift-Guideline MO-02/1 Section 5.1 in [kN]

Fastening system	Tested load case	Distance "e"	$F_{Rk,\ 3mm}$ = $F_{Rd,\ 3mm}$ = $F_{empf,\ 3mm}$	$F_{Rk,max}$	$F_{Rd,max}$	$F_{empf,max}$	authoritative F_{empf}
Variant 05: Window-fixing set FB FB (FL 10-190 and DS 7,0/11,5x280) in fixing base Schlagmann Poroton® -T7®	Negative wind pressure	20 mm	0.28	0.66	0.26	**0.19**	**0.19** [3)]

3) Requirement according to ift-Guideline MO-02/1 Section 5.1 $F_{empf,\ max} \geq F_{empf,\ \delta}$ not fulfilled

Design load (fracture brick) $F_{Rd,max} = F_{RK,max} / \gamma_m$ with $\gamma_m = 2.5$

Recommended load (service load) $F_{empf,max} = F_{Rd,max} / \gamma_F$ with $\gamma_F = 1.4$

Condition according to ift-Guideline MO-02/1 Clause 5.1 Equation (7) $F_{empf,max} \geq F_{empf,\delta}$

1.6 Results - Determination of load capacity of fastening system as per ift-Guideline MO-02/1 Section 4.1.3.1, Section 4.1.3.3

Fastening system	Tested load case	Distance "e"	Characteristic load-bearing capacity F_{Rk} in kN[1] at deflection δ_F in mm			
			$F_{Rk,1mm}$	$F_{Rk,2mm}$	$F_{Rk,3mm}$	$F_{Rk,max}$
Variant 06: Window-fixing set FB FB (FL 10-190 and DS 7,0/11,5x280) in fixing base Xella aerated concrete PP 2-0.35	Extract	---	---	---	---	**1.51** [1) 2)]
	Negative wind pressure	20 mm	0.06	0.14	**0.22**	**1.56** [1) 2)]

1) Characteristic load which ensures with a 75 % probability that 95 % of the values are higher than this (5 % fractiles)

2) A correction factor, determined from the average standardized lithographic strength f_b divided by the actual lithographic strength of the tested samples $f_{b,test}$ was taken into account.

1.6.1 Requirements as per ift-Guideline MO-02/1 Section 5.1 in [kN]

Fastening system	Tested load case	Distance "e"	$F_{Rk,\ 3mm} = F_{Rd,\ 3mm} = F_{empf,\ 3mm}$	$F_{Rk,max}$	$F_{Rd,max}$	$F_{empf,max}$	authoritative F_{empf}
Variant 06: Window-fixing set FB FB (FL 10-190 and DS 7,0/11,5x280) in fixing base Xella aerated concrete PP 2-0.35	Negative wind pressure	20 mm	**0.22**	1.56	0.78	0.56	**0.22**

3) Requirement according to ift-Guideline MO-02/1 Section 5.1 $F_{empf,\ max} \geq F_{empf,\ \delta}$ not fulfilled

Design load (fracture aerated concrete) $F_{Rd,max} = F_{RK,max} / \gamma_m$ with $\gamma_m = 2.0$

Recommended load (service load) $F_{empf,max} = F_{Rd,max} / \gamma_F$ with $\gamma_F = 1.4$

Condition according to ift-Guideline MO-02/1 Clause 5.1 Equation (7) $F_{empf,max} \geq F_{empf,\delta}$