



Passive House Building envelope in all climatic regions

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solutions for the practice

franz freundorfer

smartwin Our partners around the globe



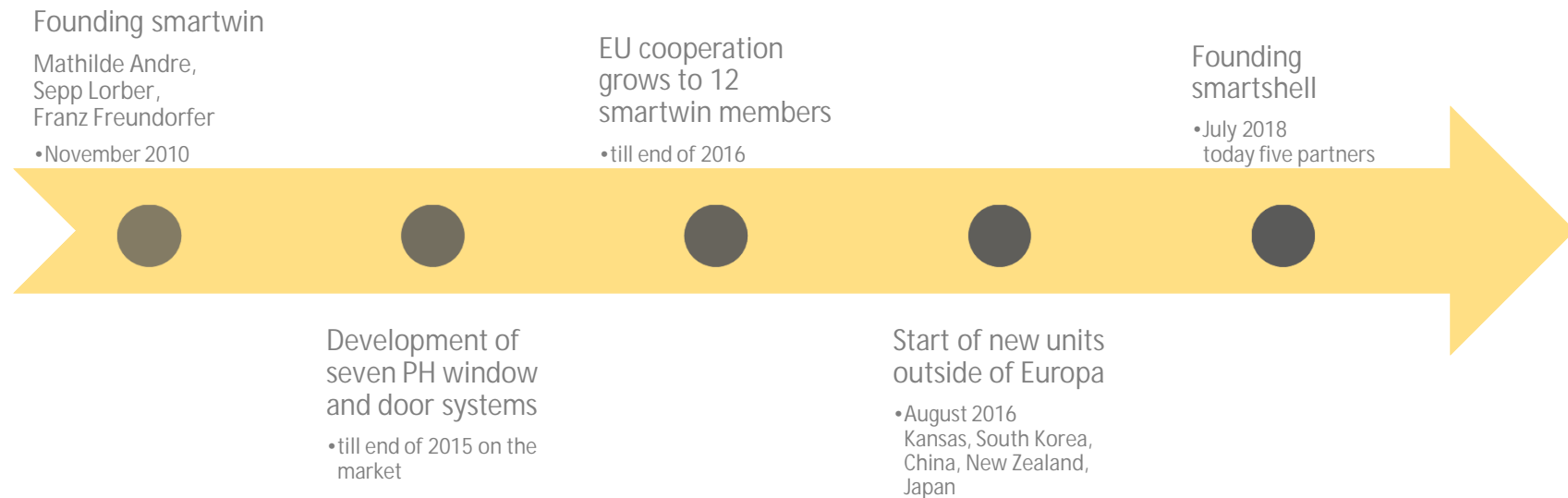
Außerhalb der Abbildung unserer Lizenzpartner werden Sie nicht sein.
 pro Fachhausfenster GmbH
 Martin Graf Straße 20
 D-30389 Oberrhausen
 Tel.: 05033 / 304968
 Fax: 05033 / 304963
 www.smartwin.eu
New partners for smartwin and smartshell wanted

- Deutschland**
 HoltWin-Fensterbau GmbH
 Coverwegallee 11
 D-91305 Regensburg
 Tel.: 09 102 / 992 881
 Fax: 09 102 / 994 527
 www.holtwin.de
- Österreich**
 Lorber Fensterbau
 Guglgäßgasse 3
 8020 Inzlingbruck a/W
 Tel.: +43 (0)3134 22 90
 Fax: +43 (0)3134 52 592
 www.lorberfenster.at
- Italien**
 Kranz Fenster- und Türenbau
 Johannes-Frank-Straße 3
 A-4600 Schwarzenstadt
 Tel.: +43 (0) 3623 / 23 23 0
 Mobil: +43 (0)664 88 77 44 44 1
 www.kranzfenster.at
- Slowakei**
 Hobbita Slovensko s.r.o.
 Home Chiebury C-28
 16-0633 Home Chiebury
 Tel.: +421 (0)948 732515
 Fax: +421 (0)948 7301672
 www.Hobbita.sk
 www.hobbita.sk/en/slovakia
- Niederlande**
 smartwin.nl
 Marconistraat 29
 NL-2009 PH Gooisewijk
 Tel.: +31 (0)182 / 50 14 60
 Fax: +31 (0)182 / 50 04 13
 Mobil: +31 (0)6 / 4609481
 www.smartwin.nl
- Frankreich**
 Manufaktur Andre Sart
 143 r. de Chartraine les Bids
 F-20200 Chartraine
 Tel.: +33 (0)47 57 11 48 1
 Fax: +33 (0)4 54 77 77 1
 www.andre-manufaktur.fr
- Lettland**
 i2 Factory
 Kalgā ielā 9
 Jurģaiznīte
 Salaspils Municipality
 LV-2118
 www.i2.lv
 info@i2.lv; i2@i2.lv
- Irland**
 Eco Homes
 16 Carrigilla Ind. Park
 R6 Carrigilla CO. Cork
 Tel.: +353 (0)21 49 14 44 9
 Fax: +353 (0)21 49 73 48 8
 www.ecohomes.ie
 eco@ecohomes.ie; info@ecohomes.ie
- Schweden**
 i2 Factory
 Kalgā ielā 9
 Jurģaiznīte
 Salaspils Municipality
 LV-2118
 www.i2.lv
- Unit USA**
 Advantage Architectural Woodwork LLC
 804 Hollister
 20th Century Rd S
 KS-67070 Colby, Kansas
 Tel.: +1 316 269 3279
 www.advantagewoodwork.com
- Unit South Korea**
 U Fachhaus Ltd. - smartwin south korea
 Jinsung-ro42, Jongsongu
 43-0015, Seoul
 Tel.: +82 (0) 1075 105506
 info@u-fachhaus.com
- Unit New Zealand**
 SEDA Windows&Doors
 73 Hula Road, H. Chevalier
 NZ 1022 Auckland
 Tel.: +64 (0) 21 672216
- Unit China**
 Bumer Lehman China
 Baimi 21 Lane 4025 Guojingm R
 201616 Shanghai China
 Tel.: +86 (0) 21 54577789
 bgl@bumer.co.cn
- Unit Japan**
 SANKOW OCEAN VIEW
 318-1, Torimichi Maruyama-City
 763-009 Kagawa / Japan
 Tel.: +81 (0) 877-33000
 info-map@stpp.com

smartwin

Just market
 cozy homes
 as your
 product
 and not its
 components.
 Passive
 House is
 "just" the
 energy
 standard
 of your
 product.

History of smartwin and smartshell cooperation



Since 2010, we invest 100% of the license fee into smartwin cooperation for further development and marketing. The result is 5% development budget from our partners' turn over.

Phquick: 25 numbers from the project and half an hour work for input to phquick



TFA: m² 164.3 m²

Deviation from north

<i>NORTH: 0°</i>	6
<i>EAST: 90°</i>	96
<i>SOUTH: 180°</i>	186
<i>WEST: 270°</i>	276

Wall: m²

<i>NORTH:</i>	59.95
<i>EAST:</i>	40.6
<i>SOUTH:</i>	43.49
<i>WEST:</i>	54.42

Roof area: m² 103.6

Window area: m²

<i>NORTH:</i>	6.38
<i>EAST:</i>	6.86
<i>SOUTH:</i>	8.68
<i>WEST:</i>	1.32

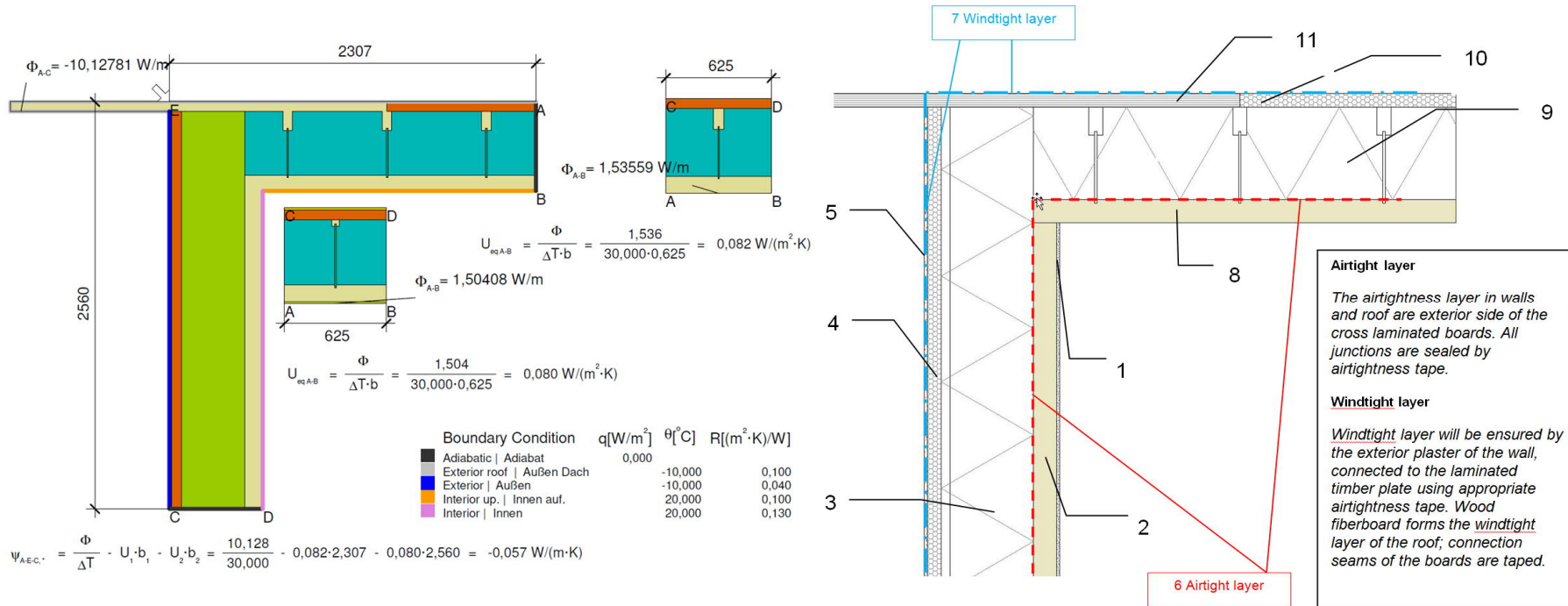
Window frame: m

<i>NORTH:</i>	12.4
<i>EAST:</i>	7.8
<i>SOUTH:</i>	34.8
<i>WEST:</i>	6.4

Bottom plate: m² 95.5

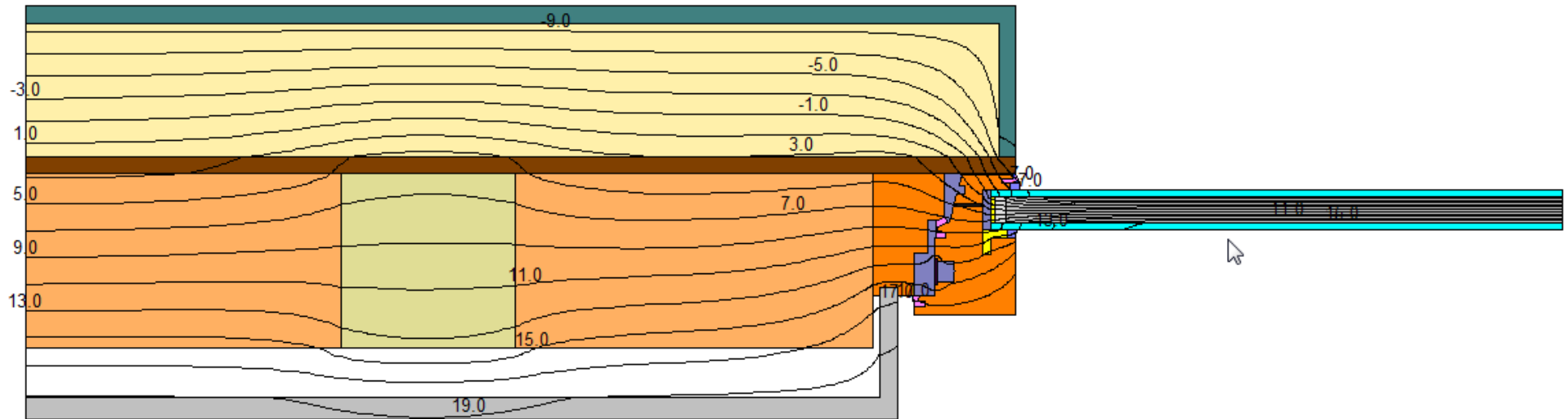
From these geometric data, a PHPP is automatically generated.

Certified wall and building system as your standard



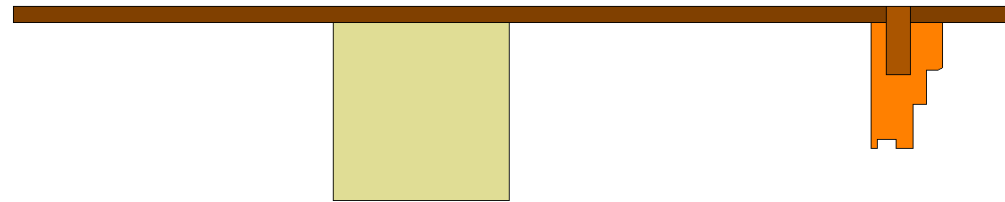
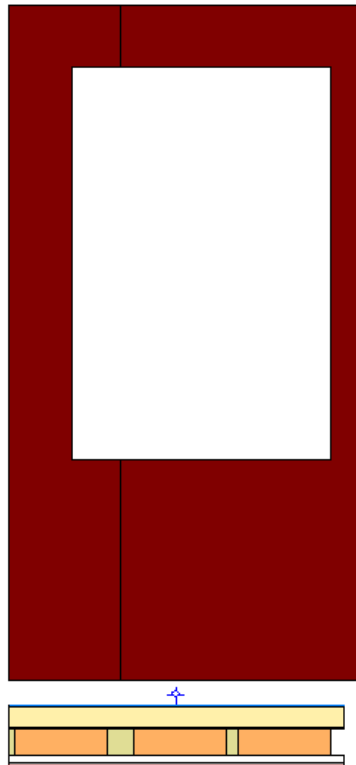
This documentation contains all necessary information. "It's the Bible of the building!"

Window inclusion of smartwin compact in Japanese timber frame construction



Inclusion of window => window frame is part of the wall

Creation of an exact window opening in the plywood with holes for the position of frame parts



1. Plywood has exact holes from prefabrication.
2. The frame profiles with wooden dowels are positioned along these holes.
3. The final fixing is done with screws made of plywood in the frame.

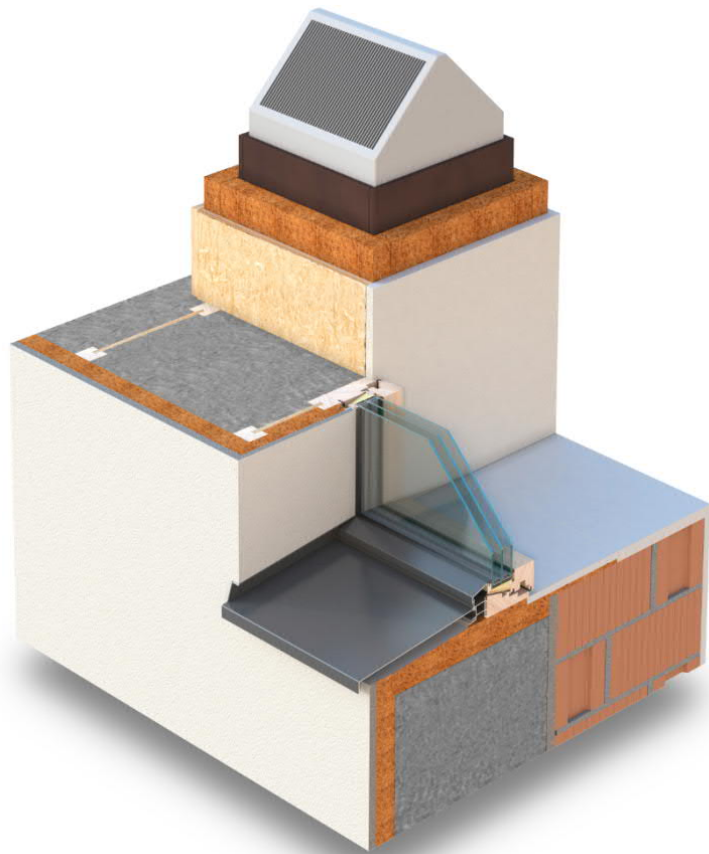
Fitting of single frame elements into plywood plate

Certified Passive House designer and craftsmen in all trades



The good ones do not fall off the trees. Educate them!

Ventilation through integration into building envelope



A passive house certified, CE signed comfort ventilation unit with a nominal flow rate of max. 180 m³ can be produced in small amounts below 1000,- EUR.

Thus, the end consumer can still earn money with his fresh air.