



**EVOLVED
SMARTWALL™**

2024 UK Addition

S
series



MZ
series



RX
series



**The JUWÖ Evolved SmartWall™
ThermoPlan® System**

www.juwo-smartwall.co.uk

Why should I build a brick house from JUWO SmartWall™?

Comfortable living climate in winter and summer

A comfortable living climate is characterised by:

- Pleasant room temperature in every season
- Ideal humidity
- Dry walls
- Healthy indoor air

Bricks create a pleasant indoor climate thanks to their excellent thermal insulation and long-term heat storage. In a brick house it is always nice and warm and you feel comfortable. The interplay of insulation and heat storage is unique in the monolithic brick wall.

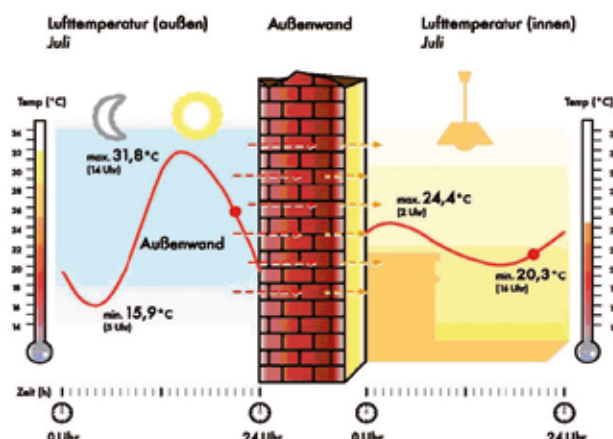
Increasingly important! Pleasantly cool in summer: bricks have the unique property of offering high thermal insulation combined with high storage mass. This natural air conditioning keeps the temperature in the house relatively constant and protects against heat in summer. No other building material achieves this in this form.



Interestingly, all other masonry manufacturers (lightweight concrete, aerated concrete, etc.) also bring up the argument with the storage mass. Compared to light wooden structures, the advantage is also real. The fact is, however, that the brick has significantly more mass, assuming the same thermal insulation, and can therefore store significantly more heat or coolness.

Clear advantage for the monolithic wall

Only the monolithic wall is able to store the coolness of the night and the warmth of the day and release it to the inside at a later time. The insulation of an additionally insulated facade initially prevents the heat of the summer day from hitting the masonry and heating it up. But it also prevents the coolness of the night from cooling down the wall. It's getting warmer every day. After several summer days, it can no longer be avoided that it stays hot inside. The heat can no longer escape through the insulation in the other direction. Compensation through the coolness of the night does not even come into the house. A ventilation system doesn't really help either. This is why it often stays unbearably hot for a long time in additionally insulated houses in summer.



Lowest moisture content of all comparable building materials

The more moisture, the worse the thermal insulation. The rule of thumb is: Every percent more moisture reduces the thermal insulation by approx. 10%. Bricks are dried and then burned in the fire. They have the fastest drying time and the lowest residual moisture of all comparable building materials whose final drying time is up to 3 years and more. That is, bricks provide thermal insulation from the start.

Monetary benefits right from the start

- Highly insulating bricks save real money. Do not be fooled by superficially cheaper building materials.
- Gain of living space through slim walls from 30 cm wall thickness. The new bricks of the RX®series are ideal for almost all applications from a wall thickness of 30 cm due to their superlative building physics values. Building owners gain living space and property developers considerable yield advantages.
- Since the brick is dry and does not shrink, the wall can be plastered without a long wait. Manufacturers of binder-bound building materials, on the other hand, recommend a waiting period of at least 6 months. The four-digit savings in scaffolding costs alone are considerable.
- Thanks to the dry bricks, the thermal insulation works right from the start. This directly saves a lot of heating costs.
- Follow-up costs due to mould are virtually impossible.
- Due to the dimensional stability of the bricks and in connection with the recommended plasters, the risk of subsequent crack formation is significantly reduced.

Sustainability - "Green Deal" since 1862. Bricks for future® made by JUWO

- Building ecologically and sustainable - preferably monolithic (plaster inside, brick, plaster outside - done).
- A brick house is built to last. Its long service life without the need for maintenance is true sustainability.
- The facade made of monolithic masonry without artificial insulation systems is free of harmful biocides (treatment with biocides in ETICS systems against fungal and algal infestation is problematic).
- Thermal insulation composite systems are more vulnerable than a plastered monolithic wall and the service life is limited (max. 30 - 40 years). The facade must then be disposed of as hazardous waste. This is not only ecological nonsense, but also very expensive. The insulation madness will bring big problems in this context in the future!
- The transport of raw materials to production and the end product to the construction site is essential for the CO footprint. JUWÖ and Zeller have been deeply rooted at their locations for generations and mainly deliver regionally and the raw materials are mined on site. The demolition material from a brick house can be stored in conventional rubble landfills or reused as recycled building material. Solutions for recycling broken bricks (e.g. in road construction or as a tennis court surface) already exist and are constantly being improved.
- In all plants we use electricity from renewable energies.

- The Fresenius Institute confirms: JUWÖ clay can even be used as healing earth.
- Random samples of the bricks are checked twice a year for harmful substances by independent institutes. Since the beginning of these measurements in 2007, all values are, firstly, harmless and, secondly, without significant deviations.
- Awarded by the Eco Institute, which confirms the harmlessness of bricks filled with Rockwool and glass wool.
- All JUWÖ bricks also have a state-of-the-art environmental product declaration (EPD) in accordance with ISO 14025 and EN 15804. In contrast to the now unmanageable jungle of certification bodies and labels, this is recognized throughout Europe, very demanding and serious.
- Together with the Fraunhofer Institute, JUWÖ is running an extensive research project on the use of green hydrogen for brick production.
- Last but not least, JUWÖ created the JUWÖ Arboretum back in the 1990s. In the tree garden there are over 600 trees, shrubs and grasses on almost 10,000 m² and enrich nature.
- More than 18 hectares of vineyards, which have been earmarked for future raw material extraction for generations and generations, not only ensure excellent wine but also store CO₂ year after year. In addition, there are almost 33 hectares of other agricultural land and biotope.
- Bricks are also completely carbon-free, now and in the future. If humanity is to be decarbonized from 2050, everything that releases CO₂ again - including wooden houses - would be an environmental problem.
- Guaranteed wood-free - JUWÖ bricks are purely mineral and protect the increasingly valuable resource of the forest.
- JUWÖ plans to set up a solar park on initially 6 hectares and then on a total of 25 hectares of its own land in the immediate vicinity of the Wöllstein plant. Step by step and depending on the technical possibilities, we are replacing our previous energy mix with a sustainable, decentralized power supply in our own hands.
- Since 2021 we have been offering professional and reputable 2 optional CO compensation as part of a certified carbon footprint management system according to EN14064-1.



High thermal insulation - protect the climate with bricks

The (right from the start) excellent thermal insulation of your house is guaranteed by:

- Solid and dry brick construction
- Constant innovation in highly insulating bricks.

JUWÖ bricks meet current and future requirements for maximum thermal insulation.

Info! Actual thermal insulation even higher:

The bricks, which are relatively heavy due to their high raw density, store the heat rays of the sun longer than all other building materials and thus save additional heating energy. This effect was scientifically proven by Prof. Fehrenberg, for example, when examining two rental properties with brick walls: one building was additionally insulated, the other not. Previously, the heating costs of both buildings were largely identical. Since then, they have been around 13% higher in the modernized building than in the non-refurbished building. Explanation: The bricks store the sun's rays and thus prevent heat energy losses. This effect is lost with additional external insulation. (Source: World on Sunday)

JUWÖ bricks have extremely high compressive strength values

Due to the special Wöllsteiner clay in connection with a special production process, the extremely thermally insulating JUWÖ bricks also have extremely high compressive strength values.

This puts JUWÖ at the forefront among brick manufacturers. This is especially true for the top thermal insulation blocks of the non-tile competition. This can show a maximum compressive strength class 2. JUWÖ bricks are therefore many times more pressure-resistant.

Did you know that?

14 N/mm² corresponds to a load of over 130 tons, ie a highly thermally insulating ThermoPlan®S9 carries the load of more than 3 fully loaded 40 to trucks including trailers. Of course, most buildings do not necessarily need these high compressive strength values. But it is helpful for many constructive details and it simply gives a good feeling.

Minimal follow-up costs and valuable

Term at least 100 years - guaranteed increase in value. A house made of bricks requires almost no maintenance work for decades and therefore has very low follow-up costs. But a brick house is also a safe investment that you can use and experience in real life, now, and not in a virtual, abstract, and maybe never.

Effective noise protection

A heavy brick wall offers high soundproofing.

Safe fire protection

A brick house offers the highest level of fire protection and safety through:

- Non-combustible bricks
- Solid solid construction
- Long resistance times
- No toxic fumes

Universal usability

Bricks can be used universally and flexibly from single-family houses to multi-storey buildings.

JUWÖ Honey: Ours

The JUWÖ BrickBees will soon take care of that employee and hobby beekeeper Christopher Silz from the Digital/Media team, who looks after a total of 5 bee colonies in the JUWÖ Arboretum. There, and in the surrounding vineyards, where we had already planted honey flower seeds last year, the bees will collect plenty of nectar.





JUWO Evolved SmartWall™ Single Skin Monolithic Building System to suit all types of buildings

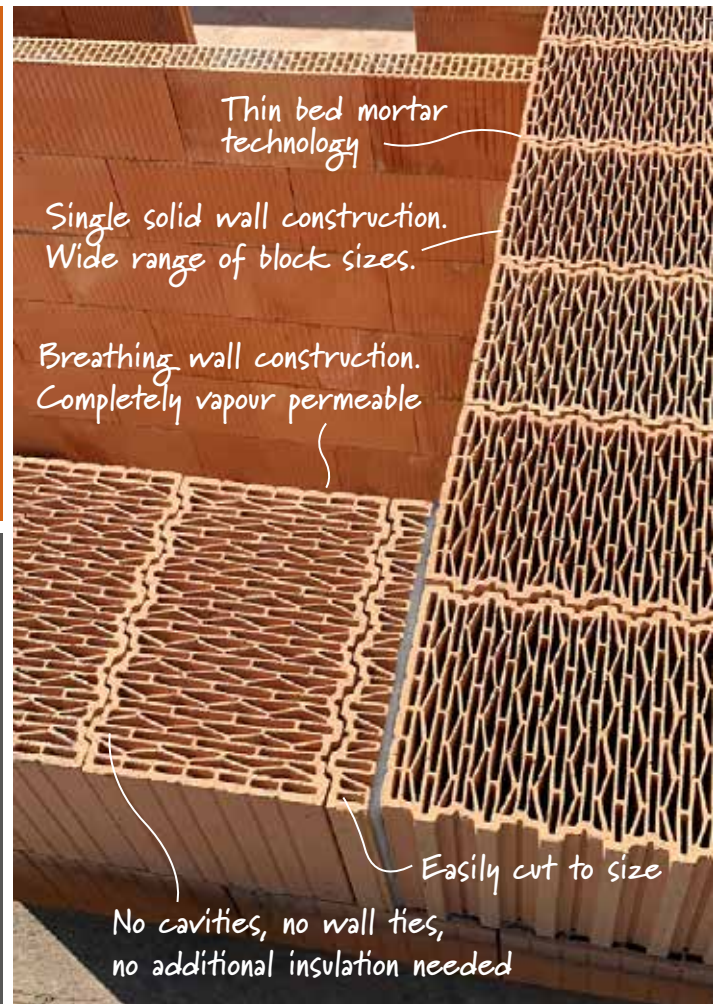


JUWO EVOLVED SMARTWALL™

THE CLAY BLOCK BUILDING SYSTEM OF THE FUTURE

JUWO Evolved SmartWall™ is a Monolithic clay block building system for External Wall Construction that's easy to build with, reduces construction time, has excellent thermal insulation qualities and requires no cavities, no additional insulation and no wall ties, to meet current and new Future Home standards.

The system offers a full array of block types and sizes to meet any thermal requirement from 0.28 U Value through to 0.11 U value, all in a single block.



The JUWO Evolved SmartWall™ system comes with all the necessary ancillary items such as Insulated Steel Box lintels, fixings and finishing plasters, renders and brick slips options.

Full 'on site' training can be provided if required.



ThermoPlan® RX series

The new dimension in monolithic solid brick construction.

RX®60



RX®65-G



RX®80 GT



NEW!



New dimension for technical values

- Highest Thermal Insulation
- Highest compressive strength up to $f 5.0 \text{ MN/m}_2$
- Highest soundproofing up to $R = 50.7 \text{ dB}$

A new dimension for more living space and economy

- Top U-values for BEG or KFN efficiency houses from 30 cm wall thickness for all building types
- Passive house or plus energy house from 42.5 cm wall thickness
- No additional insulation work and full added value for the contractor
- Done in one step
- The solid brick protects the insulation from damage
- Maintenance-free over the entire service life and therefore cost savings for builders or landlords

New dimension for sustainability and health

- Solid fired clay bricks-made to last
- Filling made of PoroTec that is firmly bonded to the core®
- 100% recyclable thanks to the integrated material cycle
- Climate neutral
- Guaranteed wood-free! - we leave the trees in the forest

New dimension in safety and processing

- Complete range of end, corner and coursing bricks
- Reveal bricks for secure window attachment and fall protection



Highest requirements:



How do you construct an object brick?

The answer is not that simple. Because it's about more than just energy efficiency. The safety of the planners, the construction workers and the future users of the property are also at stake.

Commercial buildings place very special demands on the statics. A commercial brick should therefore have the appropriate compressive strength and f values. But that's not all: The values for thermal insulation and fire protection must also comply with the legal and technical specifications.

Requirements for an object brick

peculiarities	impact	Evaluation
statics	High load capacity	✓
compressive strength	High level of security	✓
Fire protection	F90-AB on walls and pillars	✓
BEG (formerly KfW) GEG (formerly EnEV)	Fulfillment of the eligibility criteria	✓
sound reduction index	rest in the house	✓
Low thermal conductivity	Future-proof low heating costs	✓
Diffusion-open construction	Perfect moisture balance	✓
Weather-independent workability	No damage from building moisture	✓
Pollutant-free construction	Facade without chemical agents	✓
Pure separation	All components easily separable	✓
100% recycling	Fully recyclable	✓
Economic wall thickness	High yield through gain in living space	✓
Monolithic wall construction	No additional insulation work and full added value for the contractor	✓
Maintenance free and durable	Permanently damage-free facade. Cool in summer, warm in winter thanks to its unique storage capacity.	✓

High-tech design results in a superior hole pattern

The hole pattern determines the final results in the measuring laboratory. A new bridge arrangement that leads to outstanding statics; a hole pattern that enables excellent U-values; filling with an environmentally friendly material; and a diffusion-open construction that ensures permanent moisture balance.

Meet tomorrow's environmental standards today

The new bricks from JUWÖ ThermoPlan® Due to their outstanding technical data, the RX series offer everything that object construction needs.

ThermoPlan®RX 60 according to approval Z-17.1-1067 ZMK X6 WG 150

(Scope of application: single-family, semi-detached and terraced houses)



thermal conductivity $\lambda_b=0.060$ W/(mK)
 bulk density 0.50 kg/dm³
 strength class 4
 compressive strength $f_k=1.9$ MN/m²
 fire resistance class F 60-AB
 approval decision Z-17.1-1067

Insulation material: PoroTec®

Article no.	Article	Dimension in mm		kg/pc	Piece/ palette	piece per		m ² / palette	
		LENGTH x WIDTH x HEIGHT				m ²	m ³		
01 300 60 1 0	RX®300/60	248	300	249	9.4	72	16	53	4.50
01 365 60 1 0	RX®365/60	248	365	249	11.3	60	16	44	3.75
01 425 60 1 0	RX®425/60	248	425	249	13.4	48	16	38	3.00
01 500 60 1 0	RX®500/60	248	500	249	15.7	48	16	32	3.00

AREAS OF APPLICATION AND TARGET GROUP: SINGLE-FAMILY, SEMI-DETACHED AND TERRACED HOUSES

RX®300/60 Only **30 cm** wall thickness! For maximum living space in terraced houses, semi-detached houses or tiny houses.

RX®365/60 Available on request. Maximum performance with proven wall thickness of 36.5 cm.

RX®425/60 passive house in **42.5cm** Wall thickness possible (unique): passive house with additional living space. High level for EFH, RHH, DHH. **RX®500/60** The flagship with impressive **50 cm** Wall thickness: EFH, RHH, DHH with U-value of 0.11 W/m²K: More heat protection is not possible.

ThermoPlan®RX 65-G according to approval Z-17.1-1067 ZMK X6.5 WG 155

(Scope of application: multi-storey building and object construction)



thermal conductivity $\lambda_b=0.065$ W/(mK)
 bulk density 0.55 kg/dm³
 strength class 6
 compressive strength $f_k=2.5$ MN/m²
 fire resistance class F 60-AB
 approval decision Z-17.1-1067

Insulation material: PoroTec®

Sound insulation according to test certificate

RX®300/65 GR w,construction,ref = 48.0dB
 RX®365/65 SIZE w,construction,ref = 49.5dB
 RX®425/65-GR w,construction,ref = 48.7dB

Article no.	Article	Dimension in mm		kg/pc	Piece/ palette	piece per		m ² / palette	
		LENGTH x WIDTH x HEIGHT				m ²	m ³		
01 300 65 1 0	RX®300/65-G248	248	300	249	10.4	72	16	53	4.50
01 365 65 1 0	RX®365/65-G	248	365	249	12.6	60	16	44	3.75
01 425 65 1 0	RX®425/65-G248	248	425	249	14.7	48	16	38	3.00

AREAS OF APPLICATION AND TARGET GROUP: MULTI-STOREY BUILDING AND PROJECT CONSTRUCTION

RX®300/65-G for monolithic commercial construction and apartment buildings in **30 cm wall thickness**. Space gain in the urban environment and thus a noticeable increase in yield. The object brick for property developers and investors.

RX®365/65-G for the better wall in the **proven wall thickness of 36.5 cm**. For property developers, investors and planners who prefer to build in 36.5 cm. Easy upgrade to the higher-quality wall without interfering with the planning.

RX®425/65-G for the **Passive house standard with a wall thickness of 42.5 cm** in object construction. A gain in area compared to the usual 49 cm and a noticeable increase in yield in an urban environment with strict specifications for thermal insulation.

ThermoPlan®RX 80 GT according to approval Z-17.1-1186 ZMK-R8 WG 160

(Scope of application: multi-storey building and object construction)



thermal conductivity $\lambda_b=0.08$ W/(mK)
 bulk density 0.70 kg/dm³
 strength class 12
 compressive strength $f_k=5.0$ MN/m²
 fire resistance class F 90-AB
 approval decision Z-17.1-1186

Insulation material: PoroTec®

RX®365/80 GT R w,construction,ref = 50.7dB
 RX®425/80 GT R w,construction,ref = 49.6dB

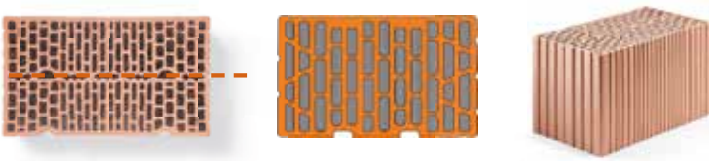
Article no.	Article	Dimension in mm		kg/pc	Piece/ palette	piece per		m ² / palette	
		LENGTH x WIDTH x HEIGHT				m ²	m ³		
01 365 80 1 0	RX®365/80 GT247	247	365	249	15.7	60	16	44	3.75
01 425 80 1 0	RX®425/80 GT	247	425	249	18.3	48	16	38	3.00

AREAS OF APPLICATION AND TARGET GROUP: MULTI-STOREY BUILDING AND PROJECT CONSTRUCTION UP TO 9 STORIES

The **RX®365/80 GT** and the **RX®425/80 GT** are the weight lifters under the bricks. The special hole geometry ensures enormous load-bearing capacity and enables multi-storey buildings with up to 9 floors. With excellent sound insulation and fire protection values included. For developers and investors who play it safe without making compromises.

ThermoPlan®RX series

ThermoPlan®RX Supplement Brick WG 165



RX®500 end long
2x 12.3 End, to be separated on site

The RX®-Reveal bricks for all ZMK approvals bring you safely around the corner and ensure the safe installation of windows and fall protection.

JUWO RX®- Reveal brick

- As an end and corner brick for secure window attachment
 - End tiles for smooth window reveals
- The corner/reveal brick "End long" is supplied as a whole tile and can easily be divided in the middle.

RX®60 + RX®65-G + RX®80 GTCorner, end and soffit tiles

Article no.	Article	Dimension in mm			kg/pc	Piece/ palette	Designation
		LENGTH	WIDTH	HEIGHT			
01 300 80 3 0	RX®300 end long	248	300	249	13.1	72	Reveal brick for 30.0 cm
01 365 80 3 0	RX®365 end long	248	365	249	15.7	60	Corner/reveal brick for 36.5 cm
01 425 80 3 0	RX®425 end long	248	425	249	18.3	48	Reveal brick for 42.5cm
01 500 80 3 0	RX®500 end long	248	500	249	20.3	48	Corner/reveal brick
01 300 80 4 2	RX®300 corners	175	300	249	9.2	60	corner brick for 30.0cm and 42.5cm

RX®60 + RX®65-G + RX®80 GTKimmziegel: always in the lowest position

Article no.	Article	Dimension in mm			kg/pc	Piece/ palette	Designation
		LENGTH	WIDTH	HEIGHT			
01 300 65 2 0	RX®300/2	248	300	124	5.0	144	Coursing brick
01 365 65 2 0	RX®365/2	248	365	124	6.2	96	Coursing brick
01 425 65 2 0	RX®425/2	248	425	124	7.2	96	Coursing brick
01 500 65 2 0	RX®500/2	248	500	124	8.5	96	Coursing brick
01 365 80 2 0	RX®-GT 365/2	248	365	124	7.9	96	Coursing brick
01 425 80 2 0	RX®-GT 425/2	248	425	124	9.1	96	Coursing brick





JUWÖ ThermoPlan®MZ

MZ65-MZ70

Maximum thermal insulation in Detached and terraced house with insulating material filling.



for rock wool
and glass wool
filled products



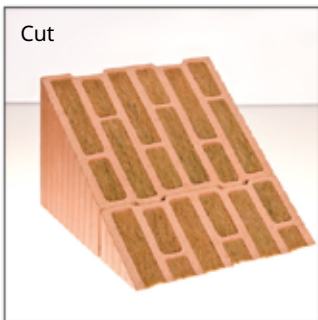
for rockwool



Cross-section



Humidity



Cut



Drilling and fixings

MZ75-G-MZ80-GS-MZ90-G/GMS

Excellent sound and heat insulation for apartment buildings.

- The ThermoPlan®MZ is another innovation with insulating material filling in brick production to effectively save heating energy, to protect the environment and to reduce the operating costs of your brick house.
- Brick is a natural product made from the four elements fire, water, earth and air that has been in use for thousands of years and is constantly being further developed. For the ThermoPlan®MZ we have expanded this principle to include another insulating material: mineral wool.
- The ThermoPlan®MZ has integrated thermal insulation made of mineral wool in the brick chambers with excellent properties: it is non-combustible, water-repellent but vapour permeable, resistant to aging and not only provides excellent insulation against heat and humidity cold, but also against noise.
- With ThermoPlan®You can build monolithic brick walls with integrated and protected insulation using MZ bricks and the tried-and-tested JUWÖ VD flat brick construction system. Additional thermal insulation composite systems on the outside wall are not required.
- The ThermoPlan®MZ guarantees homeowners and tenants high savings in the operating costs of heating while at the same time protecting the climate effectively.
- The ThermoPlan®MZ withstands all types of mechanical stress, e.g. B. vibrations, sawing, drilling, milling without damage. Its massive format ensures excellent cut building physics values and excellent processing quality.
- The ThermoPlan®MZ generates low wall costs including wages and plastering costs during the shell construction.
- The rational processing of the ThermoPlan®MZ bricks are made using the tried-and-tested JUWÖ VD plane brick construction system, with which all JUWÖ plane bricks are laid in a high-quality, safe and timesaving manner.
- **Humidity**
The hydrophobic (water-repellent) setting of the integrated thermal insulation makes the masonry insensitive to moisture. Penetrating moisture is passed on to the brick by the mineral wool and diffuses outwards through the capillary effect of the brick material. As is always the case when building with bricks, the top horizontal joint should be carefully covered on the construction site in order to prevent major water ingress from rain or snow.
- **Installation of windows and doors**
System-compatible end and supplementary tiles are offered for window reveals, which ensure that the window and door elements are securely fastened.
- **Drilling and fixings**
The thick outer web and the equally thick inner webs ensure high pull-out values for the dowels in the brick. In general, holes should always be drilled in the brick wall with a drill without a hammer mechanism.
- **Cutting the bricks**
Due to the good bonding effect of brick webs and integrated thermal insulation, processing on the construction site is unproblematic. With the wet cutting machine, band saw or the electric handsaw (DeWALT DWE398-QS), the ThermoPlan®MZ can be sawn in any height, length and shape with clean cuts.

ThermoPlan®MZ series

ThermoPlan®MZ65 WG 206

(Area of application: single-family, semi-detached and terraced houses)



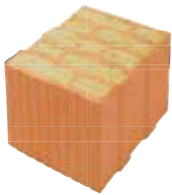
thermal conductivity $\lambda_a=0.065$ W/(mK)
 bulk density 0.60 kg/dm³
 strength class 8
 Permitted compressive stress 0.83 MN/m² $f_k= 2.2$ MN/m²
 fire resistance class Firewall REI-M 90
 approval decision Z-17.1-1086

Sound insulation according to test certificate
 MZ 425/65 R = 46.4 dB

Alzenau plant	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH X HEIGHT</small>			kg / piece	Piece / palette	piece per		m ² / palette
							m ²	m ³		
	02 365 65 1 2 N	MZ 365/65	248	365	249	13.2	60	16	44	3.75
	02 425 65 1 2 N	MZ 425/65	248	425	249	14.4	48	16	38	3.00
	02 490 65 1 2 N	MZ 490/65	248	490	249	16.6	48	16	33	3.00

ThermoPlan®MZ70 WG 210

(Area of application: single-family, semi-detached and terraced houses)



thermal conductivity $1) \lambda_B=0.07$ W/(mK)
 bulk density 0.60 kg/dm³
 strength class 8
 Permitted compressive stress 0.83 MN/m² $f_k= 2.2$ MN/m²
 fire resistance class ≥ 30 cm = F90 A, ≥ 36.5 cm firewall
 approval decision Z-17.1-1084

Sound insulation according to test certificate
 MZ 365/70 R = 45.4 dB

Alzenau plant	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH X HEIGHT</small>			kg / piece	Piece / palette	piece per		m ² / palette
							m ²	m ³		
	08 240 07 1 2	MZ 240/70	248	240	249	8.3	80	16	67	5.00
	02 300 07 1 2 N	MZ 300/70	248	300	249	10.9	72	16	53	4.50
	02 365 07 1 2 N	MZ 365/70	248	365	249	13.2	60	16	44	3.75
	02 425 07 1 2	MZ 425/70	248	425	249	15.4	48	16	38	3.00
	02 490 07 1 2 N	MZ 490/70	248	490	249	17.7	48	16	33	3.00

ThermoPlan®MZ75-G WG 218

(Area of application: apartment buildings)



thermal conductivity $\lambda_a=0.075$ W/(mK)
 bulk density 0.70 kg/dm³
 strength class 10/12*
 Permitted compressive stress 1.3 MN/m² $f_k(1.4^*) f_k= 3.5^*$ MN/m² (3.9^*) F
 fire resistance class 90- A+M (REI-M 90)
 approval decision Z-17.21-1239

* Upon request

Sound insulation according to test certificate

MZ 300/75-GR w.construction,ref = 48.2dB
 MZ 365/75-GR w.construction,ref = 50.8dB
 MZ 425/75-GR w.construction,ref = 50.8dB
 MZ 490/75-GR w.construction,ref approx. 51.0dB

Alzenau plant	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH X HEIGHT</small>			kg / piece	Piece / palette	piece per		m ² / palette
							m ²	m ³		
	02 300 75 1 2	MZ 300/75-G	248	300	249	13.1	72	16	53	4.50
	02 365 75 1 2	MZ 365/75-G	248	365	249	15.7	60	16	44	3.75
	02 425 75 1 2	MZ 425/75-G	248	425	249	18.3	48	16	38	3.00
	02 490 75 12	MZ 490/75-G	248	490	249	21:1	48	16	33	3.00

ThermoPlan®MZ series

ThermoPlan®MZ80-GS WG 220

(Area of application: apartment buildings)



thermal conductivity	$\lambda_B=0.08$ W/(mK)	Sound insulation according to test certificate
bulk density	0.70 kg/dm ³	
strength class	10 (12*)	
Permitted compressive stress	1.3MN/m ² (1.4*) $f_{ik}=3.5$ MN/m ² (3.9*)	MZ 300/80-GR w,construction,ref = 48.2dB
fire resistance class	REI-M 90 firewall	MZ 365/80-GR w,construction,ref = 50.8dB
approval decision	Z-17.21-1202	MZ 425/80-GR w,construction,ref = 50.8dB

* upon request

Article no.	Article	Dimension in mm			kg / piece	Piece / palette	piece per		m ² / palette
		LENGTH	WIDTH	HEIGHT			m ²	m ³	
02 300 80 1 2 N	MZ 300/80 GS	248	300	249	13.1	72	16	53	4.50
02 365 80 1 2 N	MZ 365/80-GS	248	365	249	15.7	60	16	44	3.75
02 425 80 1 2 N	MZ 425/80 GS	248	425	249	18.3	48	16	38	3.00
02 490 80 1 2 N	MZ 490/80 GS	248	490	249	21:1	48	16	33	3.00

ThermoPlan®MZ90-GMS WG 225

(Area of application: apartment buildings)



thermal conductivity	$\lambda_B=0.09$ W/(mK)	Sound insulation according to test certificate
bulk density	0.70 kg/dm ³	
strength class	12	
Permitted compressive stress	1.6MN/m ² $f_{ik}=4.5$ MN/m ²	MZ 365/90 R w,construction,ref = 49.6dB
fire resistance class	REI M 90 (F90 A+M)	MZ 425/90 R w,construction,ref about 50dB
approval decision	Z-17.1-1164	

Article no.	Article	Dimension in mm			kg / piece	Piece / palette	piece per		m ² / palette
		LENGTH	WIDTH	HEIGHT			m ²	m ³	
02 366 09 1 2	NMZ 365/90-GMS	248	365	249	15.7	60	16	44	3.75
02 426 09 1 2	MZ 425/90 GMS	248	425	249	18.3	48	16	38	3.00

ThermoPlan®MZ90-G WG 225

(Area of application: apartment buildings)



thermal conductivity	$\lambda_B=0.09$ W/(mK)	Sound insulation according to test certificate
bulk density	0.70 kg/dm ³	
strength class	10 (12*)	
Permitted compressive stress	1.3MN/m ² $f_{ik}=3.5$ MN/m ² (*1.4MN/m ² $f_{ik}=3.9$ MN/m ²)	MZ 300/90 R w,construction,ref = 48.2dB
fire resistance class	REI - M 90 firewall	MZ 365/90 R w,construction,ref = 50.8dB
approval decision	Z-17.1-1087	MZ 425/90 R w,construction,ref = 50.8dB

* upon request

Article no.	Article	Dimension in mm			kg / piece	Piece / palette	piece per		m ² / palette
		LENGTH	WIDTH	HEIGHT			m ²	m ³	
02 300 09 1 2 N	MZ 300/90-G	248	300	249	12.9	72	16	53	4.50
02 365 09 1 2 N	MZ 365/90-G	248	365	249	15.7	60	16	44	3.75
02 425 09 1 2 N	MZ 425/90-G	248	425	249	18.3	48	16	38	3.00

ThermoPlan® MZ series

ThermoPlan® MZ supplementary brick WG 235

Always set the chine bricks in the lowest position



Corner and end tiles with butt joint serrations on one side.

Kimm tile with two-sided butt joint serration.

New: End tile with extra reinforcement for window attachment.

End brick with extra reinforcement

End long
2x 12.3 End, to be separated on site

Article no.	Article	Dimension in mm <small>LENGTH x WIDTH x HEIGHT</small>			kg / piece	Piece / palette	Designation
MZ65 + MZ70							
02 300 78 4 2 N	MZ70 300 corner	175	300	249	8.5	90	corner brick
02 300 78 3 2 N	MZ70 300 End	123	300	249	6.7	144	end brick
02 365 78 3 2 N	MZ70 365 End	123	365	249	8.3	120	end brick
02 365 78 5 2 N	MZ70 365 end long	248	365	249	13.5	60	end brick
02 425 78 3 2 N	MZ70 425 End	123	425	249	9.7	96	end brick
02 425 78 5 2 N	MZ70 425 long end	248	425	249	16.5	48	end brick
01 500 80 3 0	RX®500 end long	248	500	249	20.3	48	end brick
02 300 78 2 2 N	MZ70 300/2	248	300	124	6.0	144	Coursing brick
02 365 78 2 2 N	MZ70 365/2	248	365	124	7.3	120	Coursing brick
02 425 78 2 2 N	MZ70 425/2	248	425	124	8.5	96	Coursing brick
02 490 78 2 2 N	MZ70 490/2	248	490	124	9.1	96	Coursing brick
MZ75-G + MZ80-GS + MZ90-GMS + MZ90-G							
02 300 91 4 2 N	MZ90-G 300 corner	175	300	249	10.5	90	corner brick
02 365 91 3 2 N	MZ90-G 365 End	123	365	249	8.3	120	end brick
02 365 91 5 2 N	MZ90-G 365 long end	248	365	249	15.7	60	end brick
02 425 91 3 2 N	MZ90-G 425 End	123	425	249	11.0	96	end brick
02 425 91 5 2 N	MZ90-G 425 long end	248	425	249	18.3	48	end brick
01 500 80 3 0	RX®500 end long	248	500	249	20.3	48	end brick
02 300 91 2 2 N	MZ90-G 300/2	248	300	124	7.4	144	Coursing brick
02 365 91 2 2 N	MZ90-GMS 365/2	248	365	124	9.0	120	Coursing brick
02 425 91 2 2 N	MZ90-GMS 425/2	248	425	124	10.5	96	Coursing brick
02 490 80 2 2 N	MZ80-GS 490/2	248	490	124	10.5	96	Coursing brick

Alzenau plant

ThermoPlan® S7₅

Solid brick construction in perfection.



Optimized:
• now also 36.5 cm
• higher raw density
= more mass

ThermoPlan® S7₅

- **Broad:** 36.5 + 42.5 + 49.0 cm wall thickness
- **Strong:** High mass - retains heat + coolness
- **Hot:** Pure thermal insulation without filling λ 0.07₅W/(mK)



Sensational thermal insulation power right from the start:

- U-value = 0.19 W/(m²K) = lower than the reference value of 0.20 for the alternative proof of the previous BEG-EffHaus 55 with a wall thickness of 36.5 cm up to U-value = 0.14 W/(m²K) (passive house) in a wall thickness of 49.0 cm
- High mass stores warmth and coolness – the natural air conditioning system
- Fire protection F 90 A:
- The S7₅ is non-combustible and therefore offers maximum fire protection and safety
- Excellent summer heat protection
- Even better noise protection due to higher mass
- More architectural design options thanks to larger wall cross-sections and window sills that live up to their name
- Dry right from the start: maximum residual moisture of 0.1 to 0.5%
- Possible up to a passive house without complex system technology
- Simple, uncomplicated, efficient and economical - the wall for eternity, that is true sustainability

THIS is a wall!

With the further optimized ThermoPlan S7₅ JUWÖ once again underpins its position as the innovation leader in masonry construction. The ThermoPlan bricks® S Class (S7₅, S8, S9) achieve the highest thermal insulation values - without filling or other additional insulating materials.

The ThermoPlan S7₅ further develops the standard of monolithic building culture and is the absolute top product of this series. It is now available from a wall thickness of 36.5 cm and with a higher raw density.

ThermoPlan®S7_s WG 240

(Area of application: single-family, semi-detached and terraced houses)



thermal conductivity $\lambda_b=0.075$ W/(mK)
 bulk density 0.60 kg/dm³
 strength class 6
 Permitted compressive stress 0.70 MN/m²; $f_k=1.80$ MN/m²
 fire resistance class F 90 A
 approval decision Z-17.1-1147

Works in Wollstein	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH x HEIGHT</small>			kg/pc	Piece/ palette	piece per m ² m ³		m ² / palette
	01 365 75 1 1	S365/7_s	248	365	249	13.3	60	16	44	3.75
01 425 75 1 1	S425/7_s	248	425	249	15.6	48	16	38	3.00	
01 490 75 1 1	S490/7_s	248	490	249	17.5	48	16	33	3.00	

ThermoPlan®S8 WG 245

(Area of application: single-family, semi-detached and terraced houses)



thermal conductivity $\lambda_b=0.08$ W/(mK)
 bulk density 0.60 kg/dm³
 strength class 8
 Permitted compressive stress 1.0MN/m²; $f_k=2.60$ MN/m²
 fire resistance class F 90 A
 approval decision Z-17.1-946

1) $\lambda_b=0.08$ W/(mK)
 0.60 kg/dm³
 8
 1.8MN/m²; $f_k=2.30$ MN/m²
 firewall
 Z-17.1-1013

Works in Wollstein	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH x HEIGHT</small>			kg/pc	Piece/ palette	piece per m ² m ³		m ² / palette
	01 365 08 1 1	S365/8	248	365	249	13.4	60	16	44	3.75
01 366 08 1 1	S 365/8 B₁	248	365	249	13.4	60	16	44	3.75	
01 425 08 1 1	S425/8	248	425	249	15.7	48	16	38	3.00	
01 500 08 1 1	S500/8	248	500	249	17.9	48	16	32	3.00	

ThermoPlan®S9 WG 250

(Area of application: single-family, semi-detached and terraced houses)



thermal conductivity $\lambda_b=0.09$ W/(mK)
 bulk density a) 0.60 kg/dm³ b) 0.65 kg/dm³
 strength class 8
 Permitted compressive stress 0.9MN/m²; $f_k=2.30$ MN/m²
 fire resistance class F 30A
 approval decision Z-17.1-1013

1) $\lambda_b=0.09$ W/(mK)
 0.65 kg/dm³
 8
 1.0MN/m²; $f_k=2.6$ MN/m²
 F 90 A
 Z-17.1-946

Works in Wollstein	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH x HEIGHT</small>			kg/pc	Piece/ palette	piece per m ² m ³		m ² / palette
	01 300 09 1 1	S300/9_a	248	300	249	11.1	72	16	53	4.50
01 365 09 1 1	S365/9₁	248	365	249	13.7	60	16	44	3.75	
01 425 09 1 1	S 425/9₁	248	425	249	16.0	48	16	38	3.00	

Alzenau plant	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH x HEIGHT</small>			kg/pc	Piece/ palette	piece per m ² m ³		m ² / palette
	02 365 09 1 1	S365/9_b	248	365	249	13.7	60	16	44	3.75

ThermoPlan® TS11

So that living space in multi-storey buildings remains affordable.



Economical in commercial construction.



ThermoPlan® TS11

- For the economic creation of commercial buildings according to GEG 2023 in monolithic construction
- It absorbs sound, insulates and is resilient.
- 100% bricks: Sustainable, uncomplicated, economical.



The requirements for thermal protection are not always "high-end". In most cases, it depends on the economic fulfillment of the current GEG 2023. This is exactly what the ThermoPlan® is for TS11. Now also with the improved thermal conductivity of $\lambda_B 0.11 \text{ W/mK}$. With the TS11, you can now plan apartment buildings and objects even more securely. For houses that people can pay for and in which they really feel good. Of course in single-leaf and monolithic

construction without compromising on sound and heat insulation. In addition, the ThermoPlan® TS11 100% brick, ie fully ceramic and without filling.

Technical data: $\lambda = 0.11 \text{ W/(mK)}$ sound insulation 49.5 dB (36.5 cm)
Permitted Compressive stress: 1.4 MN/m^2 (fk- Value 3.7 MN/m^2) DFK 10 | Firewall REI-M 90

ThermoPlan® TS11 WG 265

(So that living space in multi-storey buildings remains affordable)



thermal conductivity $\lambda_B = 0.11 \text{ W/(mK)}$
bulk density 0.75 kg/dm^3
strength class 10
Permitted compressive stress 1.4 MN/m^2 ; $f_k = 3.7 \text{ MN/m}^2$
fire resistance class REI-M 90 firewall
approval decision Z-17.1-1189

Sound insulation according to test certificate

TS 365/12 R w,construction,ref = 49.5dB
TS 425/12 R w,construction,ref about 51dB

Article no.	Article	Dimension in mm			kg/pc	Piece/palette	piece per		m ² /palette
		LENGTH	WIDTH	X HEIGHT			m ²	m ³	
01 365 11 1 7	TS 365/11	248	365	249	15.9	60	16	44	3.75
01 425 11 1 7	TS 425/11	248	425	249	19.3	48	16	38	3.00

Works in Wollstein

ThermoPlan®T and TS series

S series

ThermoPlan®TS12 WG 265

(So that living space in multi-storey buildings remains affordable)



thermal conductivity $\lambda_B=0.12$ W/(mK)
 bulk density 0.75 kg/dm³
 strength class 10 (12 on request)
 Permitted compressive stress 1.4 (1.5) MN/m² $f_k=3.7$ (4.0) MN/m²
 fire resistance class F 30 A, ≥ 36.5 = firewall
 approval decision Z-17.1-1107

Sound insulation according to test certificate
 TS 300/12 R $w_{\text{construction,ref}} = 48.3$ dB
 TS 365/12 R $w_{\text{construction,ref}} = 49.5$ dB
 TS 425/12 R $w_{\text{construction,ref}}$ approx. 51dB

Works in Wollstein	Article no.	Article	Dimension in mm			kg / piece	Piece / palette	piece per		m ² /
			LENGTH x WIDTH X HEIGHT					m ²	m ³	palette
	01 300 12 1 7	TS 300/12	248	300	249	13.5	72	16	53	4.50
	01 365 12 1 7	TS 365/12	248	365	249	15.9	60	16	44	3.75
	01 425 12 1 7	TS 425/12	248	425	249	19.3	48	16	38	3.00

ThermoPlan®T14 Basement brick + T14 WG 270

(Area of application: single-family, semi-detached, terraced and multi-family houses)



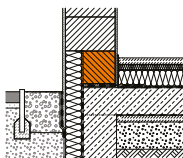
thermal conductivity $\lambda_B=0.14$ W/(mK)
 bulk density 0.70 kg/dm³
 strength class 10 (12 on request)
 Permitted compressive stress 1.3 (1.5) MN/m²
 $f_k=3.4$ (3.9) MN/m²
 fire resistance class F 30A, ≥ 30.0 = F 90A
 approval decision Z-17.1-908

All ThermoPlan T14 can also be processed in the dipping process become.

Alzenau plant	Article no.	Article	Dimension in mm			kg/pc	Piece/ palette	piece per		m ² /
			LENGTH x WIDTH X HEIGHT					m ²	m ³	palette
	02 366 14 1 3 N	TP 365/14 basement	248	365	249	15.5	60	16	44	3.75
	02 240 14 1 3 N	TP 240/14	248	240	249	9.8	96	16	67	6.0
	02 300 14 1 3 N	TP 300/14	248	300	249	12.9	72	16	53	4.5
	02 365 14 1 3 N	TP 365/14	248	365	249	15.5	60	16	44	3.75

Plan/Base Brick WG 280

(Area of application: thermally insulated chimney bricks with good performance for the masonry base)



thermal conductivity $\lambda_B=0.39$ W/(mK)
 strength class 12
 Permitted compressive stress In combination with the masonry above, a maximum of 4.7 MN/m²
 approval decision 0.8 kg/dm³
 Z-17.1-913

Technical innovation as a problem solver

Works in Wollstein	Article no.	Article	Dimension in mm			kg / piece	Piece / palette	piece per		m ² /
			LENGTH x WIDTH X HEIGHT					m ²	m ³	palette
	01 524 39 1 3	PSZ 240	498	240	249	17.5	40	8th	33	5

ThermoPlan®End, Corner and Coursing Bricks WG 275



thermal conductivity $\lambda_b=0.08 - 0.39 \text{ W/(mK)}$
 bulk density $0.65 - 0.8 \text{ kg/dm}^3$
 strength class^{1) 8 2) 12}

Corner and end tiles with butt joint serrations on one side

Kimm tile with two-sided butt joint serration

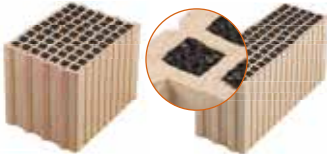
long end
 2x 12.3 End, to be separated on site

End tile with extra reinforcement for window attachment.

Article no.	Article	Dimension in mm <small>LENGTH x WIDTH X HEIGHT</small>			kg / piece	Piece / palette	Designation
S75, S8, S9, TS11 + TS12							
02 301 79 3 1	S 300 End ₁₎	124	300	249	6.1	144	end brick
02 300 79 4 1 N	S 300 corner ₁₎	175	300	249	8.5	90	corner brick
01 300 79 2 1	S300/2 ₁₎	248	300	124	5.7	144	Coursing brick
02 365 79 3 1 N	S 365 End ₁₎	124	365	249	7.8	120	end brick
01 365 79 5 1	S 365 long end ₁₎	248	365	249	15.7	60	end brick
01 365 79 2 1 N	S365/2 ₁₎	248	365	124	6.8	120	Coursing brick
01 425 79 5 1	S 425 long end ₁₎	248	425	249	15.1	48	end brick
01 425 79 2 1	S425/2 ₁₎	248	425	124	8.0	96	Coursing brick
01 490 79 2 1	S490/2 ₁₎	248	490	124	9.0	96	Coursing brick
500 end long, divisible 2 x 12.3 end to be separated on site (for window installation according to RAL)							
01 500 79 5 1	S 500 end long	248	500	249	20.1	48	end brick
HLZ, T14, TS11 + TS12							
01 175 39 2 3	TP 175/2 ₂₎	498	175	124	7.9	60	Coursing brick
01 241 39 2 3	TP 240/2 ₂₎	373	240	124	8.1	120	Coursing brick
01 300 14 2 3	TP 300/2 ₂₎	248	300	124	6.0	144	Coursing brick
01 365 14 2 3	TP 365/2 ₂₎	248	365	124	7.9	120	Coursing brick
01 425 14 2 3	TP 425/2 ₂₎	248	425	124	9.6	96	Coursing brick

Plan vertically perforated brick RX inset brick WG 170

(Scope of application: thermally insulated coursing brick with the highest technical performance as the base of the inner walls)



thermal conductivity	λ_B =Vertical 0.18 W/(mK), Horizontal 0.14 W/(mK) 0.80	
bulk density	kg/dm ³	1) 0.80 kg/dm ³
strength class	12	12
Permitted compressive stress	1.9MN/m ² f_k = 5.0MN/m ²	1.8MN/m ² f_k = 4.7 MN/
fire resistance class	F 90 AB	m2 F 90 AB
approval decision	Z-17.1-993	Z-17.1-913

Vertical perforated bricks TS square can also be used be processed in the dipping process.

Full insulating power in horizontal AND vertical directions

Works in Wollstein	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH X HEIGHT</small>			kg / piece	Piece / palette	piece per		m ² / palette
							m ²	m ³		
	01 115 18 1 9	TP 115 RX ¹⁾	498	115	249	10.3	64	8th	70	6.00
	01 175 18 1 9	TP 175 RX	498	175	249	15.7	40	8th	44	3.75
	01 240 18 1 9	TP 240 RX	373	240	249	16.0	40	11	44	3.37

Vertical perforated brick T and TS square WG 280

(Scope of application: interior and partition walls, external walls with additional insulation)



thermal conductivity	λ_B =0.39 W/(mK)	1) λ_B =0.39 W/(mK)
bulk density	0.80 kg/dm ³	0.80 kg/dm ³
strength class	12	12
Permitted compressive stress	1.9MN/m ² f_k = 5.0MN/m ²	1.8MN/m ² f_k = 4.7 MN/
fire resistance class	\geq 11.5 cm F 90 A, \geq 17.5 cm F 90 A	m2 F90 A
approval decision	+M Z-17.1-993	Z-17.1-913

Vertical perforated bricks TS square can also be used be processed in the dipping process.

Works in Wollstein	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH X HEIGHT</small>			kg / piece	Piece / palette	piece per		m ² / palette
							m ²	m ³		
	01 100 39 1 3	HP 100 ¹⁾	498	100	249	9.3	120	8th	80	15.00
	01 115 39 1 3	TP 115 ¹⁾	498	115	249	10.3	96	8th	70	12.00
	01 175 39 1 3	TP 175	498	175	249	15.7	60	8th	44	7.50
	01 241 39 1 3	TP 240	373	240	249	16.0	60	11	44	5.62

Vertical perforated brick T and TS square WG 280

(Scope of application: interior and partition walls, external walls with additional insulation)



thermal conductivity	λ_B =0.42 W/(mK)	1) λ_B =0.39 W/(mK)
bulk density	0.90 kg/dm ³	0.80 kg/dm ³
strength class	12	12
Permitted compressive stress	1.8MN/m ² f_k = 4.7 MN/m ² F 90	1.9MN/m ² f_k = 5.0MN/
fire resistance class	A 17.5cm F 90 A + M	m2 F 90 A+M
approval decision	Z-17.1-913	Z-17.1-993

Alzenau plant	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH X HEIGHT</small>			kg / piece	Piece / palette	piece per		m ² / palette
							m ²	m ³		
	02 100 39 1 3	HP 100	498	100	249	9.3	120	8th	80	15.00
	02 115 39 1 3 N	TP 115	498	115	249	10.9	96	8th	70	12.00
	02 175 39 1 3 N	TP 175	498	175	249	17.6	60	8th	44	7.50
	02 241 39 1 3 N	TP 240 ¹⁾	373	240	249	17.5	60	11	44	5.62

Sound insulation infill brick SPZ WG 285

(Scope of application: interior and soundproof walls.
external walls with additional insulation)



strength class 12
Permitted compressive stress 2.2 MN/m² $f_k = 5.8 \text{ MN/m}^2$
bulk density 0.8 kg/dm³
fire resistance class Firewall REI-M 90
approval decision Z-17.1-911

backfill quantity
17.5 wall approx. 85 litres/m²
24.0 wall approx. 130 litres/m²

Direct sound insulation according to DIN 4109

SPZ 175 55.5dB
SPZ 240: 60.5dB

Alzenau plant	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH x HEIGHT</small>			kg / piece	Piece / palette	piece per		m ² /
								m ²	m ³	palette
	02 175 96 1 7	SPZ 175	498	175	249	16.3	40	8th	46	5.00
	02 240 96 1 7 N	SPZ 240	308	240	249	13.3	72	13	54	5.32

Plan sound insulation infill bricks T can only be processed using the immersion method.

Formwork brick WG 286

(Scope of application: interior and soundproof walls.
external walls with additional insulation)



strength class not authoritative
Rating according to DIN EN 1992-1-1 Eurocode 2 as
approval decision a concrete wall Z-15.2-306
Density class filled 2.0 kg/dm³

24 wall

* Upon request

Fire protection
F 120A

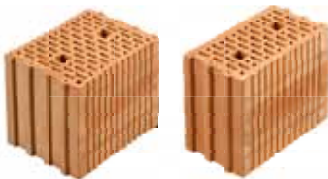
backfill quantity
approx. 155 l/m²

Direct sound insulation according to DIN 4109
SZ 240: 62.1 dB

Alzenau plant	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH x HEIGHT</small>			kg / piece	Piece / palette	piece per		m ² /
								m ²	m ³	palette
	02 175 97 1 7	SZ 175*	373	175	249	14.7	75	10.7	44	7.00
	02 240 97 1 7	SZ 240	373	240	249	16.6	60	10.7	44	5.62
	02 300 97 1 7	SZ 300*	373	300	249	18.5	45	10.7	44	4.22

Soundproof bricks T 1.2 and T 1.4 WG 290

(Scope of application: interior and soundproof walls.
external walls with additional insulation)



strength class 16 at 1.2 kg/dm³
Permitted compressive stress 2.1MN/m² $f_k = 5.5 \text{ MN/m}^2$
bulk density 1.2 kg/dm³
R_w(incl. plaster) Fire 65 dB (17.5 + 3 + 17.5) at 1.2 kg/dm³
resistance class F 90 A, ≥ 17.5 firewall REI-M 90
approval decision Z-17.1-913

Direct sound insulation according to DIN 4109
TP115/1.2: 46.1dB / TP175/1.2: 50.9dB / TP240/1.2: 54.6dB
TP115/1.4: 47.5dB / TP175/1.4: 52.3dB / TP240/1.4: 56.1dB

20 at 1.4 kg/dm³
2.4MN/m² $f_k = 6.3 \text{ MN/m}^2$
1.4 kg/dm³
67 dB (17.5 + 3 + 17.5) at 1.4 kg/dm³
F 90 A, ≥ 17.5 firewall REI-M 90
Z-17.1-913

Flat soundproofing bricks T 1.2 and T 1.4 can also be processed using the dipping method.

Alzenau plant	Article no.	Article	Dimension in mm <small>LENGTH x WIDTH x HEIGHT</small>			kg / piece	Piece / palette	piece per		m ² /
								m ²	m ³	palette
	02 115 12 1 7 N	TP 115/1.2	498	115	249	15.4	64	8th	70	7.50
	02 176 12 1 7 N	TP 175/1.2	308	175	249	14.0	60	13	70	4.65
	02 240 12 1 7 N	HP 240/1.2	308	240	249	19.8	48	13	54	3.70
	02 115 14 1 7 N	TP 115/1.4	498	115	249	17.2	60	8th	70	7.50
	02 176 14 1 7 N	HP 175/1.4	308	175	249	17.4	60	13	70	4.65
	02 240 14 1 7 N	HP 240/1.4	308	240	249	22.3	48	13	54	3.70

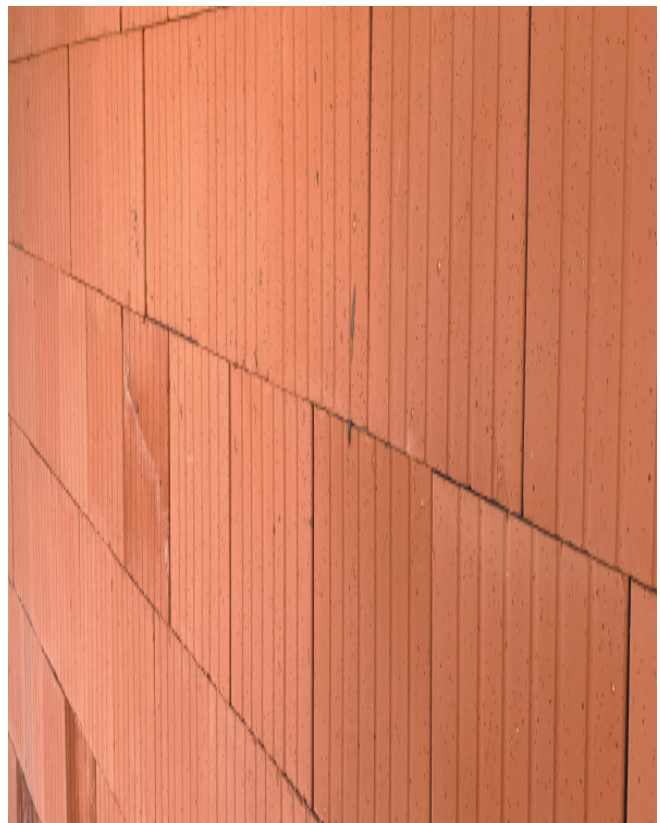
System supplement

Mortar + processing aids for JUWO SmartWall bricks

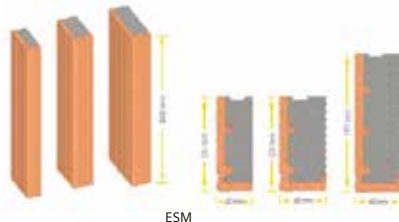
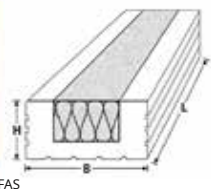


PROCESSING AIDS WG 300

Article no.	Designation
12 006 00 0 9	JUWÖ Wallslider®
12 005 00 0 9	Mortar roller 49.0 cm
12 004 00 0 9	Mortar roller 42.5 cm
12 003 00 0 9	Mortar roller 36.5 + 30.0 cm
12 002 00 0 9	Mortar roller 24.0 + 17.5 cm
12 001 00 0 0	Reducer 6.5 cm for roller



Window stop shell (supplementary brick) WG 295



- Brick window stop shell with integrated insulation.
- For a thermal bridge-optimized design of the window stop.
- The component connection with the heat-insulated stop shell corresponds to DIN 4108, supplement 2.
- The window stop shell can be easily inserted into the window reveal using thin-bed mortar.
- **ESM:** High-quality Neopor WLG 032 with tile cover, bonded with PU foam. ** 12 pcs per carton

* Price on request

Article no.	Article	Dimension in mm LENGTH x WIDTH x HEIGHT	kg / piece	Piece / palette
12 030 00 0 9	FAS	250 115 71	1.4	248

Notes thin-bed mortar consumption

Adhesive Usage

42 BAG PER PALLET 1.0 x 1.0 meters

number of pallets	1	2	3	4	5	6	7	8	9	10	11	12
Bags per pallet Required	1	2	3	4	5	6	7	8	9	10	11	12
Exterior walls with unfilled bricks S8/9 etc. must always be processed in the VD system. 1 bags of mortar per pallet												
External walls filled with MZ70/MZ80-GS bricks etc. must always be processed in the VD system. 1 bags of mortar per pallet.												

Interior walls can be dived.
1 bags of mortar per pallet.

Processing

To apply the thin-bed mortar, we recommend using JUWO SmartWall Adhesive Applicator roller, since rollers from other manufacturers may require significantly more thin-bed mortar.

Strength class, mean and minimum block strengths, from a series of compressive test results:

Strength Class	Mean	Minimum	Mean	Minimum	Mean	Minimum
	MN/m ² (MPa)	MN/m ² (MPa)	N/mm ² (MPa)	N/mm ² (MPa)	kN/m ² (kPa)	kN/m ² (kPa)
2	2.5	2.0	2.5	2.0	2 500	2 000
4	5.0	4.0	5.0	4.0	5 000	4 000
6	7.5	6.0	7.5	6.0	7 500	6 000
8	10.0	8.0	10.0	8.0	10 000	8 000
10	12.5	10.0	12.5	10.0	12 500	10 000
12	15.0	12.0	15.0	12.0	15 000	12 000
16	20.0	16.0	20.0	16.0	20 000	16 000
20	25.0	20.0	25.0	20.0	25 000	20 000
28	35.0	28.0	35.0	28.0	35 000	28 000
36	45.0	36.0	45.0	36.0	45 000	36 000
48	60.0	48.0	60.0	48.0	60 000	48 000
60	75.0	60.0	75.0	60.0	75 000	60 000



The Adhesive Application Process (mortar joint)



Mix the mortar in a clean 30 litre bucket with a double mixing paddle until there are no lumps. Mixing time: 3 minutes, allow the mortar to set and stir again.



Filling the mortar roller.



Pull the mortar roller while pressing both rollers onto the brick.



Laying the mortar layer.



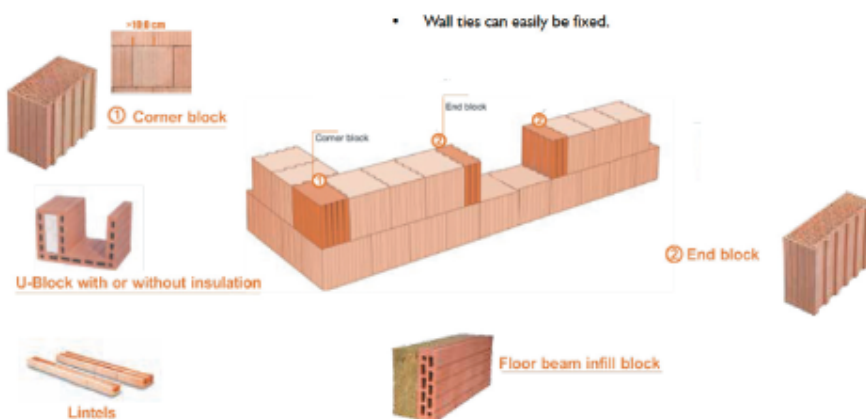
The mortar roller completely covers the horizontal joint with thin-bed mortar in one operation.



Placing the bricks and aligning. Complete!

Building with Juwo SmartWall VD Adhesive Application method is a perfect way of ensure you get the correct structural bond every time. Just Mix the adhesive, Roll, Lay the Brick, Done! All in a simple optimized method with the JUWO SmartWall VD system!

- Covering of the horizontal joint in just one operation
- Quick and efficient application of mortar with the VD roller
- Vertical air ducts in the wall are avoided
- Wall anchors are easy to insert
- The full-joint thin-bed mortar layer closes the brick layers as in conventional walls and guarantees all the required
- masonry properties in the long term
- Processing temperature above +5°C and substrate not frozen, as with all mortars and plasters



Special bricks

Only available on request in UK

ThermoBlock® wood WG 315

(For homogeneous and damage-free masonry indoors.

For external walls with additional insulation)



thermal conductivity	$\lambda_B=0.39$ W/(mK)	1) $\lambda_B=0.42$ W/(mK)
bulk density	0.8 kg/dm ³	0.9 kg/dm ³
strength class	8	12
Permitted compressive stress	1.5MN/m ² / MG IIa F 90	$f_k=3.9$ MN/m ²
fire resistance class	A ≥ 11.5 cm according to DIN EN 771-1	≥ 24 fire wall REI-M 90
approval decision		2.1MN/m ² / MG III $f_k=5.6$ MN/m ²

Article no.	Article	Dimension in mm			kg / piece	Piece / palette	piece per		m ² / palette
		LENGTH x WIDTH x HEIGHT					m ²	m ³	
02 511 39 1 4	P 511 T ₁)	498	115	238	11.2	60	8th	70	7.50
02 517 39 1 4	P 517 T ₁)	498	175	238	17.1	42	8th	44	5.25
02 524 39 1 4	P 524 T	498	240	238	22.7	30	8th	33	3.75

ThermoBlock® small formats WG 320

Only available on request in UK



thermal conductivity	$\lambda_B=0.45$ W/(mK)
bulk density	1.0 kg/dm ³
strength class	12
Permitted compressive stress	1.6MN/m ² / MG IIa
fire resistance class	F 90 A according to DIN EN 771-1 DIN EN 771
approval decision	

(Perforated bricks as supplementary bricks)

Article no.	Article	Dimension in mm			kg / piece	Piece / palette	piece per		m ² / palette
		LENGTH x WIDTH x HEIGHT					m ²	m ³	
02 115 71 1 4	p71	240	115	71	2.0	325	48	384	6.77
02 115 39 1 4	p115	240	115	113	3.0	225	32 / 64	256	7.03 / 3.52
02 175 39 1 4	P175	240	175	113	4.3	156	32 / 43	173	4.87 / 3.63
02 300 39 1 4	p30	240	300	113	7.4	82	32	103	2.56

Sound insulation bricks (small formats) WG 325

Only available on request in UK



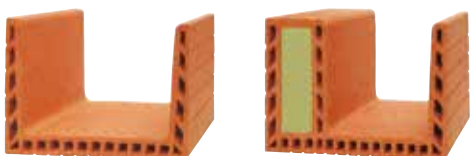
thermal conductivity	$\lambda_B=0.58$ W/(mK)	1.4 kg/dm ³
bulk density	dm ³ / 2.0 kg/dm ³	
strength class	12	
Permitted compressive stress	1.6MN/m ² / MG II afk= 5.00MN/m ²	1.8MN/m ² / MG III
fire resistance class	F 90 A according to DIN EN 771-1 DIN EN 771	$f_k=5.60$ MN/m ²
approval decision		

Article no.	Article	Dimension in mm			kg / piece	Piece/ palette	piece per		m ² / palette
		LENGTH x WIDTH x HEIGHT					m ²	m ³	
03 115 58 1 7	P115/1.4	240	115	113	3.8	225	32	256	7.00
03 175 58 1 7	P175/1.4	240	175	113	5.7	159	32	173	5.00
03 300 58 1 7	P30/1.4	240	300	113	9.8	92	32	103	2.87
Solid brick 2.0 without perforation									
03 115 96 1 7	P71/2.0	240	115	71	3.4	318	48	384	6.63

Lintels - Ring Beam - Wall Plate system

U shells + WU shells WG 330

(Bricks for lintels, columns and ring beams as "lost formwork")



Article no.	Article	Dimension in mm			kg / Piece	Piece / palette	concrete cross-section	
		LENGTH	WIDTH	HEIGHT			clear width	clear height
03 175 39 1 5	U 175	240	175	244	6.9	105	9.5 cm	18.5 cm
03 240 39 1 5	U240	240	240	244	9.2	75	15.0 cm	18.5 cm
03 300 39 1 5	U 300	240	300	244	10.0	60	20.5 cm	18.2 cm
03 365 39 1 5	U365	240	365	244	11.4	60	25.5 cm	18.0 cm
03 425 39 1 5	U 425	240	425	244	12.2	60	33.0 cm	19.0 cm
03 490 39 1 5	U 490	240	490	244	12.9	45	40.0 cm	19.5 cm
03 300 39 1 6	WU 300	240	300	244	9.6	60	14.5 cm	20.0 cm
03 365 39 1 6	WU 365	240	365	244	11.6	60	20.0 cm	20.0 cm
03 425 39 1 6	WU 425	240	425	244	11.8	60	24.0 cm	20.0 cm
03 490 39 1 6	WU 490	240	490	244	12.9	45	12"	20.0 cm

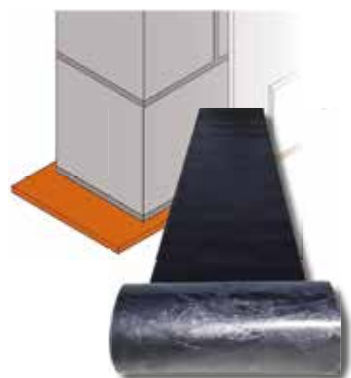
Ring anchor insulation shell RDS and RDS corner WG 295



- Ready-to-install product
- Easy, quick and inexpensive processing
- No need for formwork anchors to be fixed
- No provision, erection and dismantling, cleaning and transport of the formwork
- Compliant with thermal bridges
- Up to 30% more space for reinforcement compared to conventional construction
- Homogeneous brick plaster base with plaster grooves on the inside and outside
- RDS Universal from 30 to 49 wall thickness. 40 running meters including connecting brackets are supplied - please specify the wall thickness when ordering.

Article no.	Article	Dimension in mm			kg / Piece	Piece / palette	concrete cross-section	
		LENGTH	WIDTH	HEIGHT			clear width	clear height
16 300 39 1 9	RDS 300	1000	300	250	8.9	16	15.0 cm	25.0 cm
16 365 39 1 9	RDS 365	1000	365	250	9.4	16	21.5 cm	25.0 cm
16 425 39 1 9	RDS 425	1000	425	250	9.8	16	27.5 cm	25.0 cm
16 490 39 1 9	RDS 490	1000	490	250	10.0	16	34.0 cm	25.0 cm
16 000 39 1 9	RDS Universal							
16 300 39 4 9	RDS 300 Corner	240	300	250	2.9			
16 365 39 4 9	RDS 365 Corner	305	365	250	3.6			
16 425 39 4 9	RDS 425 Corner	365	425	250	4.3			
16 490 39 4 9	RDS 490 Corner	430	490	250	5.0			

SSL®The soundproof warehouse WG 301



Article no.	for wall thickness in mm	roll width in mm
12 056 00 0 9	115	135
12 057 00 0 9	175	195
12 058 00 0 9	240	265
12 060 00 0 9	300	320
12 061 00 0 9	365	385
12 062 00 0 9	425	445
12 063 00 0 9	490	520
Roll length 10 meters for all widths		

System supplement

Only available on request in UK

Internal lintels + thermal insulation lintels for Non Load Bearing openings WG 310



Article no.	Dimension cm Width x Height	length cm	Weight rm./kg	pallet contents
Brick falls classic				
13 115 71 1 8	11.5	7.1	100 125 150 175 200	14.24 45 pcs
13 115 71 1 8	11.5	7.1	225 250 275 300	14.24 27 pcs
13 175 71 1 8	17.5	7.1	100 125 150 175 200	24.2 30 pcs
13 175 71 1 8	17.5	7.1	225 250 275 300	24.2 18 pcs
13 115 11 1 8	11.5	11.3	100 125 150	22.0 32 pcs
13 175 11 2 8	17.5	11.3	125	33:14 20 pcs
thermal insulation lintels				
13 300 11 2 8	30.0	11.3	125 150	45.0 18 pcs
13 365 11 2 8	36.5	11.3	125 150	55.0 18 pcs
13 425 11 2 8	42.5	11.3	125 150	65.0 12 pcs

Ceiling edge shell (additional tile) WG 295



For DRE mineral wool
bulk density 1.4 kg/dm³
strength class 8

DIN 4108 Supplement 2 compliant.
DRE+ with rear anchorage for support-free or lintel-free areas
Other heights and insulation thicknesses on request

* Order related

Article no.	Article	Dimension in mm LENGTH x WIDTH x HEIGHT	kg / Piece	Piece / palette	w/ palette
10 140 18 1 9	DRE 18 mineral wool	500 140 180	7.3	60	30
10 140 20 1 9	DRE 20 mineral wool	500 140 200	7.8	60	30
10 140 22 1 9	DRE 22 mineral wool	500 140 220	8.8	60	30
10 140 25 1 9	DRE 25 mineral wool	500 140 250	10.1	50	25
16 141 18 1 9	DRE Neopor 18	500 120 180	1.9	84	42
16 141 20 1 9	DRE Neopor 20	500 120 200	2.0	70	35
16 141 22 1 9	DRE Neopor 22	500 120 220	2.1	70	35
16 141 24 1 9	DRE Neopor 24	500 120 240	2.2	70	35
16 141 25 1 9	DRE Neopor 25	500 120 250	2.2	70	35
16 141 28 1 9	DRE Neopor 28	1000 120 280	4.9	*	* Only available on request
16 141 30 1 9	DRE Neopor 30	1000 120 300	5.7	*	* Only available on request
16 142 20 1 9	Ceiling edge element 20 DRE+	500 120 200	2.1	48	24
16 142 22 1 9	Ceiling edge element 22 DRE+	500 120 220	2.2	48	24
16 142 24 1 9	Ceiling edge element 24 DRE+	500 120 240	2.3	42	21

System supplement

Column Insulation Block WG 296



SD 365 Unfaced

SD 365 brick Faced

	SD 365 / SD 365 Brick	SD 425 / SD 425 Brick
Concrete column cross-section	225 / 225mm ₃	225 / 225mm
Insulation material thickness (mm)		
- with brick shells	2x58	2x88
- without brick shells	2x70	2x100
Thermal insulation** (W/m ² K)		
- with brick shells	0.25	0.17
- without brick shells	0.21	0.15
material consumption		
- required piece / stgm	2	2
- Concrete requirement m ³ per stgm	0.06	0.06

Column formwork with a height of 50 cm

Article no.	Article	Dimension in mm			kg / Piece	Piece / palette
		LENGTH	WIDTH	HEIGHT		
16 365 39 2 9	SD 365 Unfaced	365	365	499	1.2	18
16 425 39 2 9	SD 425 Unfaced	425	425	499	1.5	12
16 365 39 3 9	SD 365 Faced brick	365	365	499	7.3	18
16 425 39 3 9	SD 425 Faced brick	425	425	499	8.5	12

** U-value including interior plaster 15 mm λR=0.88 and exterior plaster 25 mm λR=0.31

The maxmortarpad -The evolution to masonry 3.0



- Time advantage in the preparation and follow-up of the masonry process
- Easy to understand processing
- Accurate production of quality masonry
- No need for additional work equipment (application and cost advantage)
- Greater cleanliness on the construction site

Processing instructions



Moisten bricks



Lay on maxit mortar pads



Cut maxit mortar pads to size if necessary



Moisten maxit mortar pads



Lay the brick over the entire surface



Align brick as usual. Complete!

The next level of evolution when processing masonry

New standards in the processing of masonry: The maxit mortarpad ensures significant time savings and the highest quality – more accurate and easier than ever before. Trowel? mortar silo? blender? Tools that used to characterize the image of a construction site are now practically no longer necessary. The mortar pad can be processed quickly, cleanly and safely. There is no need to mix mortar or clean the tool. In this way, the bricklayer can concentrate on the actual bricklaying process. The result: The next evolutionary stage of masonry, which we call "Masonry 3.0".

maxmortarpad WG 305

Article no.	maxmortarpad
11 015 00 0 9	Irrigation set, 1 set
11 014 00 0 9	Mortar Pad 42cm x 30cm
11 013 00 0 9	Mortar Pad 36cm x 24cm
11 012 00 0 9	Mortar Pad 19cm x 36cm
11 011 00 0 9	Mortar Pad 17cm x 36cm
11 010 00 0 9	Mortar Pad 11cm x 36cm

JUWO SmartWall PU Adhesive Bonding System

PU700 JUWO SmartWall Construction Adhesive

JUWO SmartWall Construction Adhesive PU700 is all you need in one can, capable of bonding over 20sqm of JUWO SmartWall block in one can. PU700 massively saves on installation time and reduces waste significantly. PU700 is a great alternative to JUWO SmartWall™ thin coat mortar adhesive.

PU700 is also incredibly strong and can be used on all widths of JUWO SmartWall blocks, and can be supplied with a dedicated applicator for narrower width JUWO SmartWall blocks.

The original, but even better - Everything else is a copy!

- Incredibly strong adhesive
- Bonds JUWO SmartWall Monolithic Clay blocks
- Rapid curing - handling of joint within 10 minutes
- Saves installation time
- Reduces waste
- No specialist tools required
- Less mess
- Excellent chemical resistance
- Suitable for internal walls only



Corner - Reveal details More detail Designs are available on Request

**Laying instructions for a wall thickness of 30.0 cm
RX®300/60, RX®300/65-G**

- 1 Exterior wall brick d = 30.0 cm
- 2 Corner tile smooth on one side d = 30.0 cm RX@300 corners
- 3.1 Alternating in layers: RX®300 end long (entire soffit tile) smooth on one side d = 30.0 cm
- 3.2 Alternating in layers: RX®300 end long (divided reveal tile) smooth on one side d = 30.0 cm

**Laying instructions for wall thickness 36.5 cm
RX®365/65-G, RX®365/60, RX®365/80 GT**

- 1 Exterior wall brick d = 36.5 cm
- 2.1 Corner tile smooth on one side d = 36.5 cm RX®365 end long (for corner formation)
- 2.2 Alternating in layers: RX®365 End long (entire soffit tile) smooth on one side d = 36.5 cm
- 2.3 Alternating in layers: RX®365 end long (divided reveal tile) smooth on one side d = 36.5 cm

The hole patterns used in the individual detailed drawings are only to be seen as an example!
Larger views can be found in the download area of our homepage www.juwoe.de!

**Laying instructions for wall thickness 42.5 cm
RX®425/60, RX®425/65-G, RX®425/80 GT**

- 1 Exterior wall brick d = 42.5 cm
- 2 30s RX@as part of the corner formation: RX@300
- 3 Corner tile smooth on one side d = 30.0 cm RX@300
- 4.1 Alternating in layers: RX®425 end long (entire soffit tile)
- 4.2 Alternating in layers: RX®425 End long (split reveal tile)

Corner Reveal details

More detail Designs are available on Request

Laying instructions for a wall thickness of 30.0 cm

- 1 Exterior wall brick d = 30.0 cm
- 2 Corner tile smooth on one side d = 30.0 cm
S 300 corner / MZ70 300 corner
- 3 Start tile smooth on one side d = 30.0 cm S 300
End / MZ70 300 End / MZ90-G 300 End

1st layer

2nd layer

Laying instructions for a wall thickness of 36.5 cm

- 1 Exterior wall brick d = 36.5 cm
- 2 Corner tile smooth on one side d = 36.5 cm
S 365 long end / MZ80-GS 365 long end / MZ90-G 365 long end
- 3 Starting tile smooth on one side d = 36.5 cm
S 365 End / MZ70 365 End / MZ90-G 365 End

1st layer

2nd layer

The hole patterns used in the individual detailed drawings are only to be seen as an example!
Larger views can be found in the download area of our homepage www.juwoe.de

Laying instructions for a wall thickness of 42.5 cm

- 1 Exterior wall brick d = 42.5 cm
- 2 30er S9 as part of the corner formation
- 3 S300/9 corner tile smooth on one side d=30cm
- 4 S 300 corner S 425 end

1st layer

2nd layer

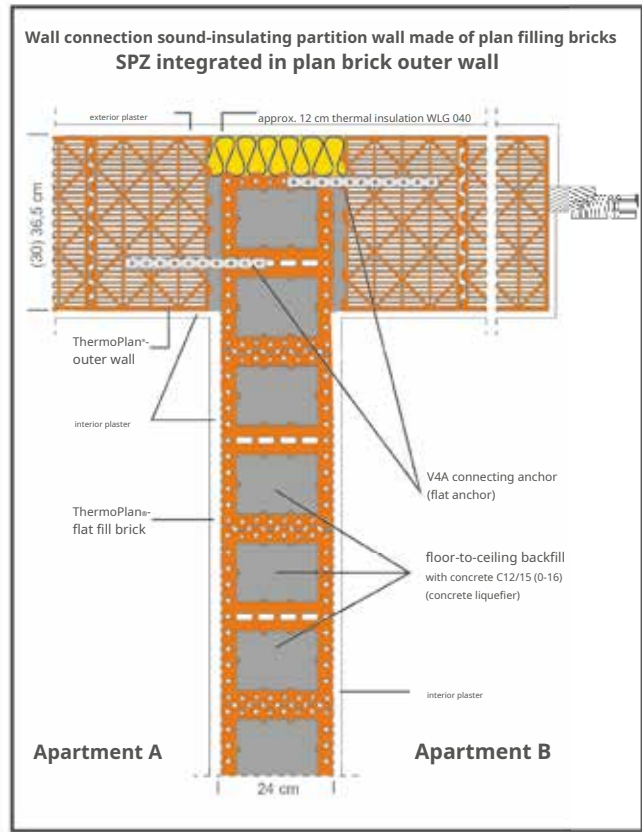
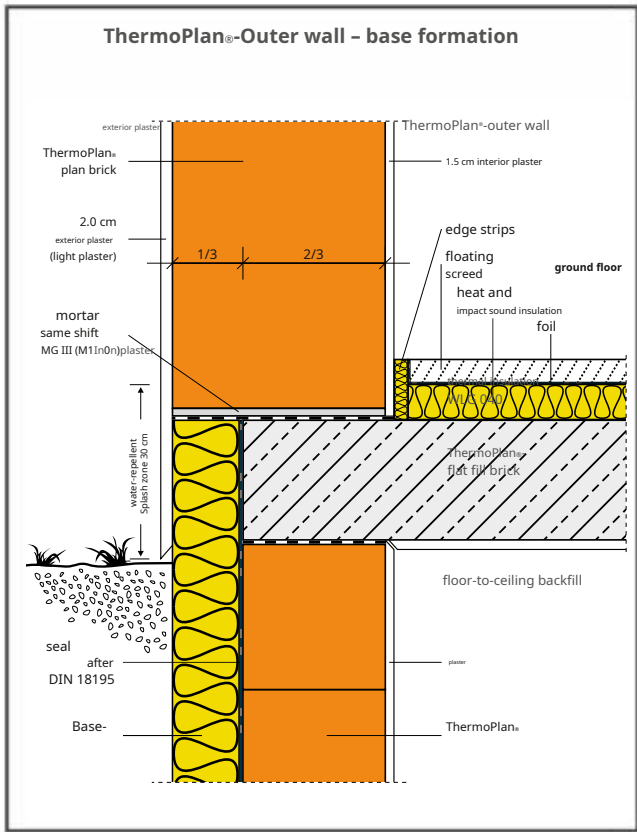
Laying instructions for a wall thickness of 49.0 cm

- 1 Exterior wall tile d = 49.0 cm end tile smooth
- 2 on one side D=49cm S 490 end

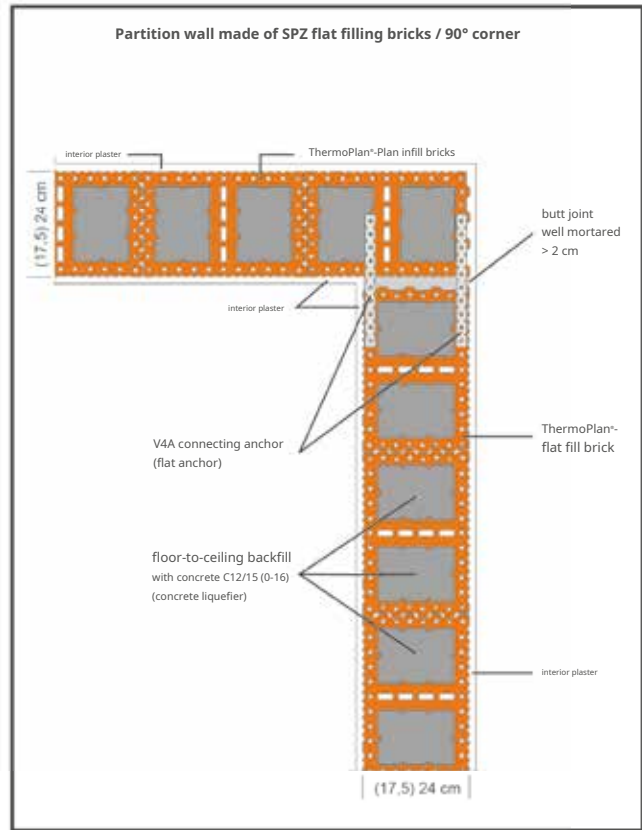
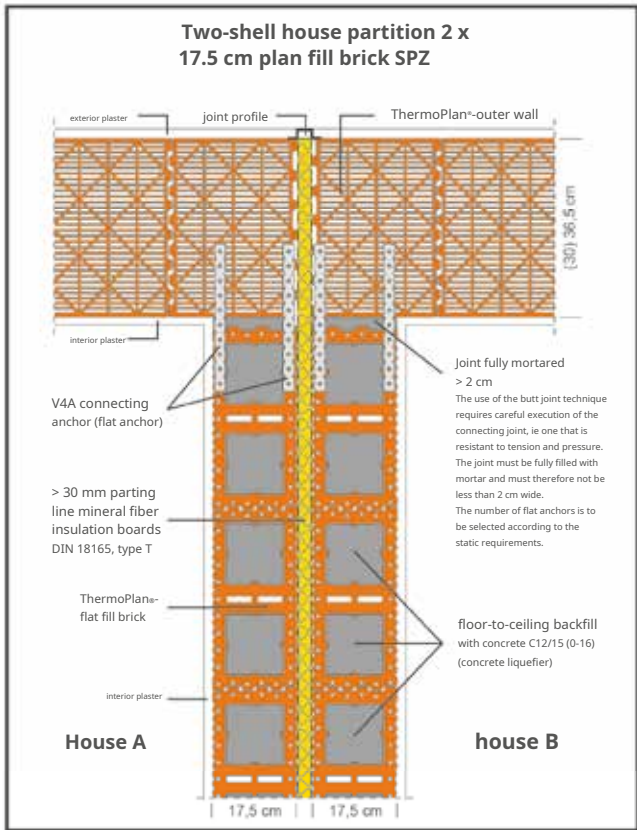
1st layer

2nd layer

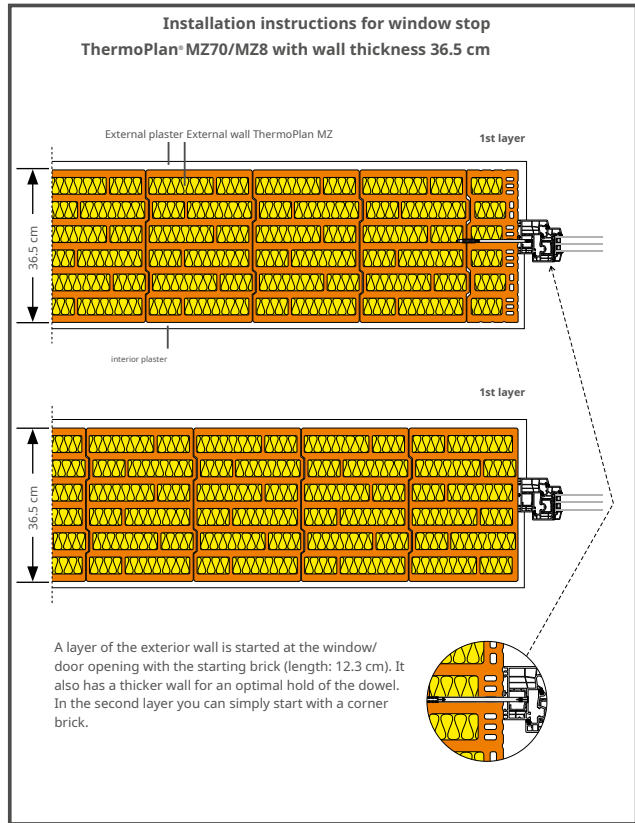
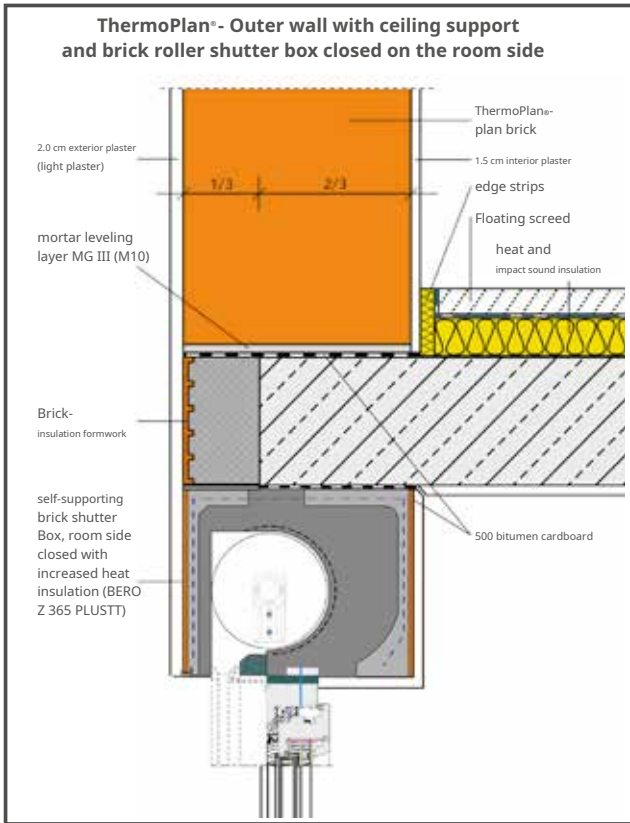
Details



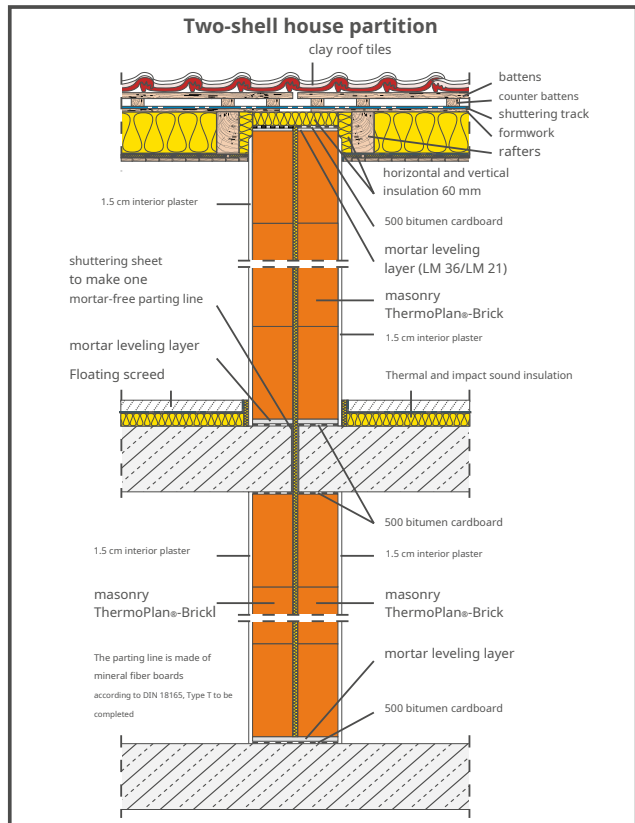
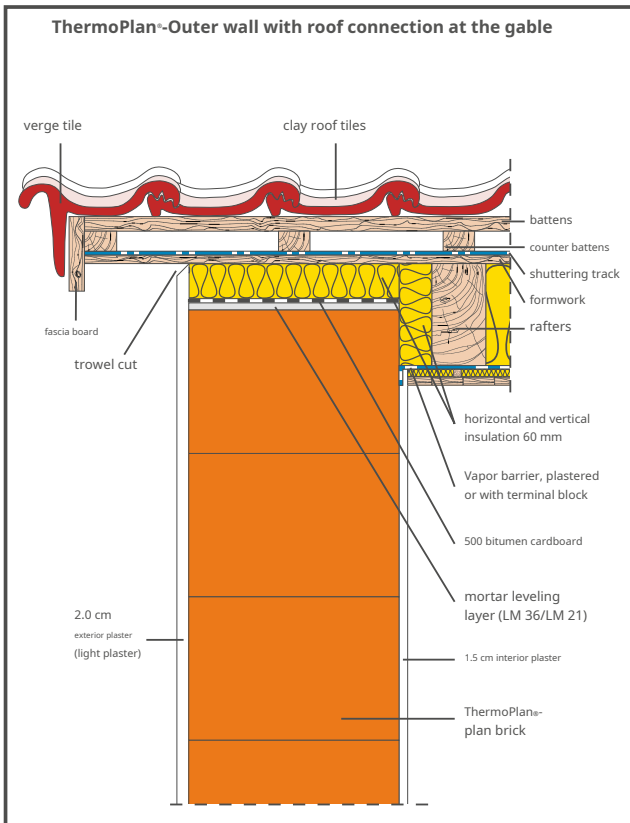
The hole patterns used in the individual detailed drawings are only to be seen as an example!
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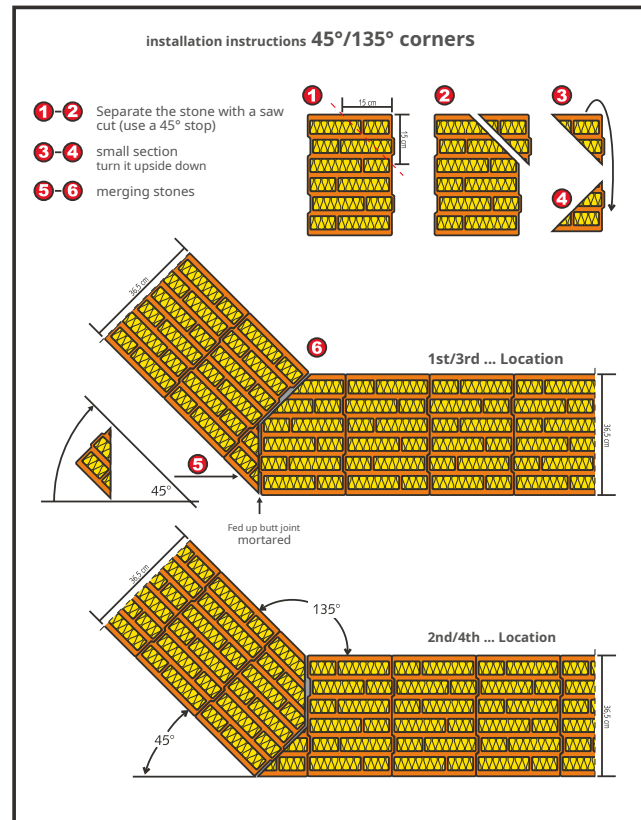
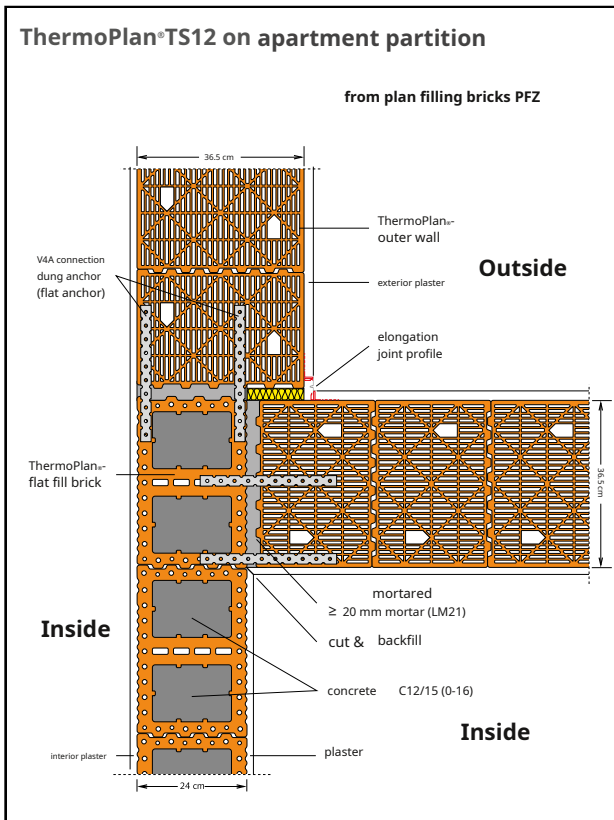
Details



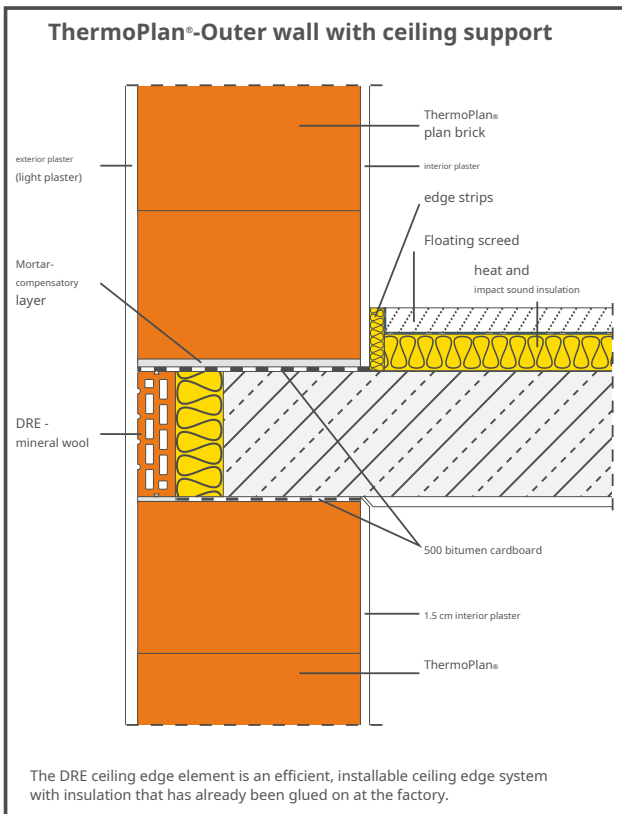
The hole patterns used in the individual detailed drawings are only to be seen as an example!
Larger views can be found in the download area of our homepage www.juwoe.de!



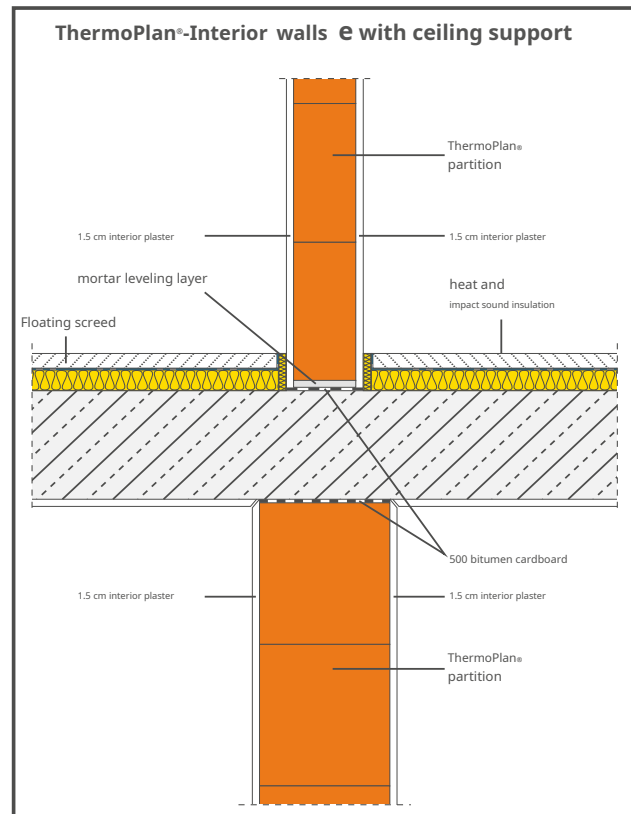
Details



The hole patterns used in the individual detailed drawings are only to be seen as an example!
Larger views can be found in the download area of our homepage www.juwoe.de!



The DRE ceiling edge element is an efficient, installable ceiling edge system with insulation that has already been glued on at the factory.



Processing tips for JUWO SmartWall



On the construction site you will need: VD mortar roller, 30 liter mixing bucket, mortar whisk with stirring spindle, adjustment boy, aluminum lath, light mortar LM 21 for imperfections, rubber mallet.



In order to compensate for unevenness in the floor slab, the mortar leveling layer made of cement mortar is applied and leveled with precision using an adjusting boy and aluminum batten.



The first layer of bricks is placed on the precisely leveled mortar band and finely adjusted with a spirit level and rubber mallet.



The supplied thin-bed mortar is mixed in a clean 30 liter bucket until there are no lumps. Mixing time approx. 3 minutes. Let the mortar mature and stir again.



The mixed thin-bed mortar is poured into the mortar roller. This means that the mortar is applied efficiently and easily.



Pull the mortar roller continuously in one direction (see labeling on the device), thereby pressing the rollers onto the lower layer of bricks.



The mortar roller completely covers the horizontal joint with thin-bed mortar in one operation.



Now the bricks are placed and aligned. Complete!



Residual dimensions are closed with sawn bricks. Always align sawn surfaces inwards and fill butt joints with LM 21.

Special notes on the processing of SPZ & Unfill bricks



As with normal plane brick walls, the first layer is precisely placed in cement mortar M10.



The thin-bed mortar is mixed with water and the whisk and then poured into a mortar trough for processing.



The thin-bed mortar mixed in the bucket is poured into the mortar pan. Here, brick by brick is briefly immersed, the mortar immediately adheres firmly to the underside of the brick.



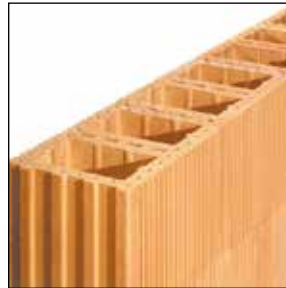
After the first layer of mortar has been placed, it is not filled yet, but the wall is created over its entire height with thin-bed mortar.



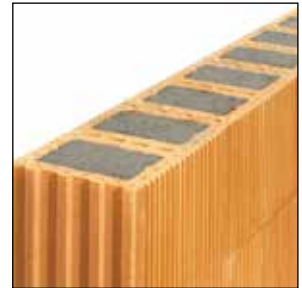
The PFZ makes beginners superfluous - a cut through the row of holes in the middle bar creates exactly 2 half bricks. Corners, door reveals and elevator shafts can be manufactured even more easily than before.



Offset in the wall bond, the channels are exactly on top of each other. This is important for floor-to-ceiling concrete backfill!



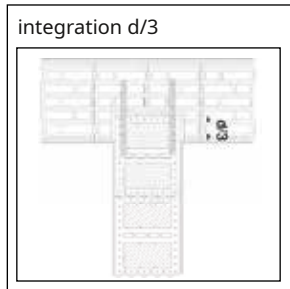
Only the finished wall is filled with concrete floor to ceiling. The most efficient way to do this is, for example, in one operation during or before concreting the ceiling.



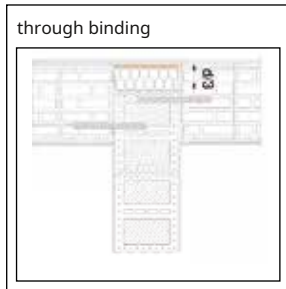
Fast construction without time-consuming material changes for noise protection walls. The finished flat-fill brick wall brings high values in terms of sound insulation and compressive strength.



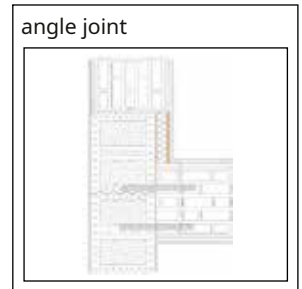
The plan filling brick is filled with concrete C12/15 (grain size 0-16, with BV). Then the ceiling can be concreted.



The integration can be sufficient for the low demands on sound insulation (only minimum sound insulation required according to DIN 4109-1:2018-01). Evidence of the individual execution situation is always required.



The connection with insulating material and only a brick cover on the outside represents the best variant for sound insulation.

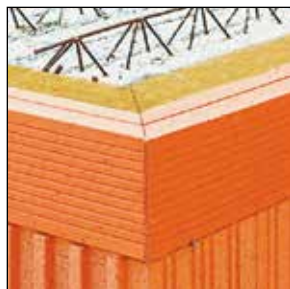


If the outer wall is angled, then the through-connection beyond the outer wall with additional insulation is the best variant for sound insulation.

Ceiling edge system with DRE mineral wool



Slab edge shell with factory-glued insulation, a special hydrophobic mineral wool (WLG: 035), against formwork pressure.



Efficient laying of the ceiling edge systems in one step. No loss of time due to shuttering work.



Advantages: Avoidance of thermal bridges, homogeneous plaster base, statically resilient, reduction in vertical longitudinal sound transmission, no adhesion between concrete and wall.



Processing-friendly dimensions and weights. Universal brick heights for normal, medium and thin-bed mortar.

Drilling and Fixing into JUWO SmartWall



Drill diameter approx. 1 mm smaller than dowel diameter. Switch off the hammer mechanism - only rotary drilling is permitted!



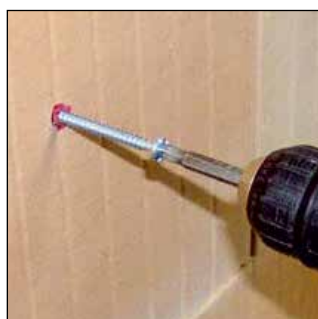
Tip: Use ground carbide drills (like steel drills) - these drill faster!



Drill hole depth about 10 mm larger than dowel length so that the screw can protrude over the dowel tip.



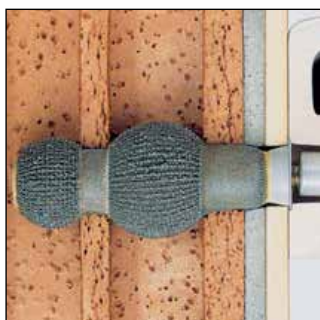
Clean the drill hole by blowing out, vacuuming or with a brush (drilling dust impairs adhesion), only then insert the dowel.



Observe the dowel manufacturer's information on screw thickness and length to ensure optimum hold!



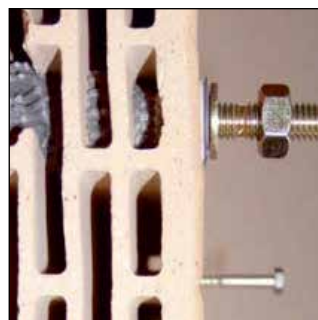
Commercially available plastic dowels can be used for household attachments.



There are specially designed dowels and injection dowels for fastening sanitary objects etc.



For heavy loads there are Injection anchors that ensure a secure hold.



Tip: Injection dowels should be used if the inner webs are broken due to incorrect drilling (e.g. percussion drilling).

Cutting Channels & Services into JUWO SmartWall

Observe "Execution of slots and openings in walls"! (see table below)

Subsequent chiseling is not permitted according to DIN (generally applies to masonry). Only the slot cutter maintains the defined slot depth.

The following also applies: as far as possible from the heavily loaded comply with masonry (e.g. under lintels), avoid slits in narrow pillars, horizontal slits no more than 40 cm above the floor or under the ceiling.



Mark the electrical socket and core drill with a conventional drill and diamond dry drill bit.



Remove any brick residue and drilling dust - and you have a perfect hole for an electrical socket.



Special slot cutter with two diamond cutting discs and adjustable cutting width and depth.



Slot the bricks with the slot cutter.



Knock out the pre-sawn slots with a hammer and chisel.



Inserting the electrical installation into the slots.

Permissible slots and recesses in load-bearing walls without verification

wall thickness	Horizontal and oblique slots subsequently manufactured ¹⁾		Vertical slots and cutouts subsequently manufactured			
	slot length		slot depth ⁴⁾	single slot bread ⁵⁾	Distance from openings	total slot width ⁵⁾
	unlimited	< 1.25m ²⁾				
	slot depth ³⁾					
115	-	-	10	100	115	-
175	0	25	30	100		260
240	15	25	30	150		385
300	20	30	30	200		385
365	20	30	30	200		385

1) Horizontal and sloping slots are only permitted in an area ≤ 0.4 m above and below the soffit and on one side of the wall. They are not permitted for slotted bricks.

2) Minimum distance in the longitudinal direction from openings ≥ 490 mm, double the slot length from the next horizontal slot.

3) The depth may be increased by 10 mm if tools are used with which the depth can be precisely maintained. When using such tools, opposing slots, each 10 mm deep, may also be made in walls ≥ 240 mm.

4) Slots that reach a maximum of 1 m above the floor may be made with a wall thickness ≥ 240 mm up to 80 mm deep and 120 mm wide.

5) The total width of slots according to columns 5 and 7 must not exceed the dimensions in column 7 for each 2 m wall length. If the wall length is less than 2 m, the values in column 7 must be reduced in proportion to the wall length.

Processing tips for JUWO SmartWall



Accurate cutting of bricks using a brick saw (e.g. DW 398 from DeWalt®) is recoil-proof and quick thanks to the counter-rotating saw blade system.



Bricks are also cut cleanly and precisely with a wet saw with a diamond saw blade or with a band saw (the hatchet is out of place when working on bricks!).



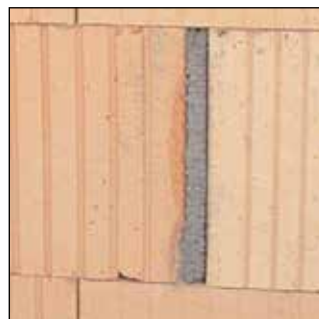
Masonry bond after DIN 1053-1 paragraph 9.3 = binding size > 0.4 x stone height. With layers of 25 cm, there is an over binding dimension > 10 cm.



Through the use of corner and end tiles that are smooth on one side, the binding dimension is reliably maintained.



Defects in the masonry are closed with lightweight masonry mortar LM 21.



Joint widths of up to 5 mm are permitted for toothed butt joints. In addition, these are ejected with LM 21.



The masonry must be protected from the weather (rain, snow, etc.), e.g. B. by covering with foil, boards or roofing felt.



Due to its pore and capillary structure, brick masonry is a particularly suitable plaster base.



Further information can also be found in the leaflet "Plastering on brickwork".

FLAT BRICK

Designation	Filling	Authorisation no. Z 17.1-	Wall thickness cm	VD-System required	Thermal conductivity, rated value W/mK	NOTE	Strength class	NOTE
ThermoPlan RX 60	PoroTec	1067	30.0	Yes	0.060		4	
ThermoPlan RX 60	PoroTec	1067	36.5	Yes	0.060		4	
ThermoPlan RX 60	PoroTec	1067	42.5	Yes	0.060		4	
ThermoPlan RX 60	PoroTec	1067	50.0	Yes	0.060	3	4	
ThermoPlan RX 65-G	PoroTec	1067	30.0	Yes	0.065		6	
ThermoPlan RX 65-G	PoroTec	1067	36.5	Yes	0.065		6	
ThermoPlan RX 65-G	PoroTec	1067	42.5	Yes	0.065		6	
ThermoPlan MZ 65	Mineral Wool	1086	36.5	Yes	0.065		8	
ThermoPlan MZ 65	Mineral Wool	1086	42.5	Yes	0.065		8	
ThermoPlan MZ 65	Mineral Wool	1086	49.0	Yes	0.065		8	
ThermoPlan MZ 70	Mineral Wool	1084	24.0	Yes	0.070		8	
ThermoPlan MZ 70	Mineral Wool	1084	30.0	Yes	0.070		8	
ThermoPlan MZ 70	Mineral Wool	1084	36.5	Yes	0.070		8	
ThermoPlan MZ 70	Mineral Wool	1084	42.5	Yes	0.070		8	
ThermoPlan MZ 70	Mineral Wool	1084	49.0	Yes	0.070		8	
ThermoPlan S 75		1147	36.5	Yes	0.075	3	6	
ThermoPlan S 75		1147	42.5	Yes	0.075	3	6	
ThermoPlan S 75		1147	49.0	Yes	0.075	3	6	
ThermoPlan MZ 75-G	Mineral Wool	1239	30.0	Yes	0.075		10	
ThermoPlan MZ 75-G	Mineral Wool	1239	36.5	Yes	0.075		10	
ThermoPlan MZ 75-G	Mineral Wool	1239	42.5	Yes	0.075		10	
ThermoPlan MZ 75-G	Mineral Wool	1239	49.0	Yes	0.075		10	
ThermoPlan RX 80-GT	PoroTec	1186	36.5	Yes	0.080		12	
ThermoPlan RX 80-GT	PoroTec	1186	42.5	Yes	0.080		12	
ThermoPlan MZ 8	Mineral Wool	906	30.0	Yes	0.080		8	
ThermoPlan MZ 8	Mineral Wool	906	36.5	Yes	0.080		8	
ThermoPlan MZ 8	Mineral Wool	906	42.5	Yes	0.080		8	
ThermoPlan S 8		946	36.5	Yes	0.080		8	
ThermoPlan S 8 Brandwand		1013	36.5	Yes	0.080		8	
ThermoPlan S 8		946	42.5	Yes	0.080		8	
ThermoPlan S 8		946	50.0	Yes	0.080		8	
ThermoPlan MZ80-GS	Mineral Wool	1202	30.0	Yes	0.080		10	
ThermoPlan MZ80-GS	Mineral Wool	1202	36.5	Yes	0.080		10	
ThermoPlan MZ80-GS	Mineral Wool	1202	42.5	Yes	0.080		10	
ThermoPlan MZ80-GS	Mineral Wool	1202	49.0	Yes	0.080		10	
(ThermoPlan MZ80-GS) Special order		1202	30.0	Yes	0.080		12	6
(ThermoPlan MZ80-GS) Special order		1202	36.5	Yes	0.080		12	6
(ThermoPlan MZ80-GS) Special order		1202	42.5	Yes	0.080		12	6
(ThermoPlan MZ80-GS) Special order		1202	49.0	Yes	0.080		12	6
ThermoPlan S 9		1013	30.0	Yes	0.090		8	
ThermoPlan S 9		946	36.5	Yes	0.090		8	
ThermoPlan S 9		946	42.5	Yes	0.090		8	
ThermoPlan MZ90-GMS	Mineral Wool	1164	36.5	Yes	0.090		12	
ThermoPlan MZ90-GMS	Mineral Wool	1164	42.5	Yes	0.090		12	
ThermoPlan MZ90-G	Mineral Wool	1087	30.0	Yes	0.090		10	

Note 1: Fire protection: This information is based on walls/pillars plastered on both sides/all sides.

Note 2: Fire protection: It may also be necessary to distinguish between room-enclosing and non-room-enclosing and differentiate between load-bearing and non-load-bearing walls.

Note 3: For ThermoPlan S 75 and RX 60/500, the U-values are calculated with 20 mm system lightweight plaster λ 0.10 W/mK on the outside and gypsum lightweight plaster λ 0.30 W/mK on the inside.

Note 4: If necessary, observe lower permissible load for fire design.

Permissible compressive stress (DIN Germany only) σ_0 MPa	NOTE	Characteristic compressive strength (DIN Germany only) f_k MPa	NOTE	Group according to Table 3.1 of EN 1996-1-1 (See note 7)	Gross density kg/dm^3	Fire protection (See notes 1 & 2)	Acoustic insulation dB	NOTE	Remarks	Mean unit strength derived from strength class (for use with BS EN 1996 Eqn. 3.4) f_b MPa
0.72		1.90		3	0.50	F 60-AB				5.00
0.72		1.90		3	0.50	F 60-AB				5.00
0.72		1.90		2	0.50	F 60-AB				5.00
0.72		1.90		2	0.50	F 60-AB				5.00
0.94		2.50		3	0.55	F 60-AB	48.0		Optimised for sound insulation	7.50
0.94		2.50		3	0.55	F 60-AB	49.5		Optimised for sound insulation	7.50
0.94		2.50		2	0.55	F 60-AB	48.7		Optimised for sound insulation	7.50
0.84		2.20		3	0.60	Brandwand	45.4			10.00
0.84		2.20		3	0.60	Brandwand	46.4			10.00
0.84		2.20		3	0.60	Brandwand				10.00
0.84		2.20		3	0.55					10.00
0.84		2.20		3	0.50	F 30 A				10.00
0.84		2.20		3	0.50	Brandwand				10.00
0.84		2.20		3	0.50	Brandwand				10.00
0.84		2.20		3	0.50	Brandwand				10.00
0.84		2.20		3	0.50	Brandwand				10.00
0.70		1.80		3	0.50	F 90A				7.50
0.70		1.80		3	0.50	F 90A				7.50
0.70		1.80		3	0.50	F 90A				7.50
1.30		1.90		2	0.70	Brandwand	48.5		Optimised for sound insulation	7.50
1.30		1.90		3	0.70	Brandwand	50.8		Optimised for sound insulation	12.50
1.30		1.90		3	0.70	Brandwand	50.8		Optimised for sound insulation	12.50
1.30		1.90		3	0.70	Brandwand	50.0	5	Optimised for sound insulation	12.50
1.89		1.90		3	0.70	F 90-AB	50.7		Optimised for sound insulation	15.00
1.89		1.90		3	0.65	F 90-AB	49.6		Optimised for sound insulation	15.00
0.65		1.90		3	0.65	F 90A	43.9			10.00
0.65		1.90		3	0.65	F 90A	46.3			10.00
0.65		1.90		3	0.60	F 90A				10.00
1.00		1.90		3	0.60	F 90A				10.00
0.90		1.90		3	0.60	Brandwand				10.00
1.00		1.90		3	0.60	F 90A				10.00
1.00		1.90		3	0.60	F 90A				10.00
1.30	4	3.50	4	2	0.70	Brandwand	48.2		Optimised for sound insulation	12.50
1.30	4	3.50	4	3	0.70	Brandwand	50.8		Optimised for sound insulation	12.50
1.30	4	3.50	4	3	0.70	Brandwand	50.8		Optimised for sound insulation	12.50
1.30	4	3.50	4	3	0.70	Brandwand	51.0	5	Optimised for sound insulation	12.50
1.30	4	3.50	4	2	0.70	Brandwand	48.2		Optimised for sound insulation	15.00
1.30	4	3.50	4	3	0.70	Brandwand	50.8		Optimised for sound insulation	15.00
1.30	4	3.50	4	3	0.70	Brandwand	50.8		Optimised for sound insulation	15.00
1.30	4	3.50	4	3	0.70	Brandwand	51.0	5	Optimised for sound insulation	15.00
0.90		2.30		3	0.60	F 30A				10.00
1.00		2.60		3	0.65	F 90A				10.00
1.00		2.60		3	0.65	F 90A				10.00
1.60		4.50		2	0.70	Brandwand	49.6		Optimised for sound insulation	15.00
1.60		4.50		2	0.70	Brandwand	50.0	5	Optimised for sound insulation	15.00
1.30	4	3.50	4	2	0.70	Brandwand	48.2		Optimised for sound insulation	12.50

Continued on next page/s...

Note 5: Approximate value.

Note 6: For strength class and compressive strength, the product given in brackets (..) are available on request.

Note 7: Group in accordance with BS-EN-1996-1-1 is determined according to Table 3.1, on the basis of the ratio of voids (holes) and the thickness of webs and shells. Shell and web thickness in direction of the the plane of the wall is given precedence. The Category is taken as Category I (BE EN 771-1 & BE EN a996-1-1).

Note 8: Plan-Schallschutzziegel - Grouped according to Table 3.1 of BS EN 1996 but this is largely irrelevant if the unit is filled with concrete as intended.

FLAT BRICK

Designation	Filling	Authorisation no. Z 17.1-	Wall thickness cm	VD-System required	Thermal conductivity, rated value W/mK	NOTE	Strength class	NOTE	Permissible compressive stress (DIN Germany only) σ_0 MPa
ThermoPlan MZ90-G	Mineralwool	1067	36.5	Yes	0.090		10		1.30
ThermoPlan MZ90-G	Mineralwool	1087	42.5	Yes	0.090		10		1.30
(ThermoPlan MZ90-G) Special order	Mineralwool	1087	30.0	Yes	0.090		12	6	1.30
(ThermoPlan MZ90-G) Special order	Mineralwool	1087	36.5	Yes	0.090	3	12	6	1.30
ThermoPlan T10		1047	30.0	Yes	0.100		8		0.90
ThermoPlan T10		1047	36.5	Yes	0.100		8		0.90
ThermoPlan MZ 10	Mineralwool	1015	30.0	Yes	0.100		10		1.00
ThermoPlan MZ 10	Mineralwool	1015	36.5	Yes	0.100		10		1.00
ThermoPlan MZ 10	Mineralwool	1015	42.5	Yes	0.100		10		1.00
(ThermoPlan MZ 10) Special order	Mineralwool	1015	30.0	Yes	0.100		12	6	1.30
(ThermoPlan MZ 10) Special order	Mineralwool	1015	36.5	Yes	0.100		12	6	1.30
(ThermoPlan MZ 10) Special order	Mineralwool	1015	42.5	Yes	0.100		12	6	1.30
ThermoPlan TS 11		1189	36.5	Yes	0.110		10		1.40
ThermoPlan TS 11		1189	42.5	Yes	0.110		10		1.40
ThermoPlan TS 12		1107	30.0	Yes	0.120	3	10		1.40
ThermoPlan TS 12		1107	36.5	Yes	0.120	3	10		1.40
ThermoPlan TS 12		1107	42.5	Yes	0.120	3	10		1.40
(ThermoPlan TS 12) Special order		1107	30.0	Yes	0.120		12	6	1.50
(ThermoPlan TS 12) Special order		1107	36.5	Yes	0.120		12	6	1.50
(ThermoPlan TS 12) Special order		1107	42.5	Yes	0.120		12	6	1.50
ThermoPlan T14		908	24.0		0.140		10		1.30
ThermoPlan T14		908	30.0		0.140		10		1.30
ThermoPlan T14		908	36.5		0.140		10		1.30
ThermoPlan T14 Keller		908	36.5		0.140		10		1.30
(ThermoPlan T14) Special order		908	24.0		0.140		12	6	1.50
(ThermoPlan T14) Special order		908	30.0		0.140		12	6	1.50
(ThermoPlan T14) Special order		908	36.5		0.140		12	6	1.50
(ThermoPlan T14 Keller) Special order		908	36.5		0.140		12	6	1.50
ThermoPlan HLz T			10.0	Wöllstein	0.390		12		1.80
ThermoPlan HLz T		913	11.5	Wöllstein	0.390		12		1.80
ThermoPlan TS Square		993	17.5	Wöllstein	0.390		12		1.90
ThermoPlan TS Square		993	24.0	Wöllstein	0.390		12		1.90
ThermoPlan HLz T			10.0	Alzenau	0.420		12		1.80
ThermoPlan HLz T		913	11.5	Alzenau	0.420		12		1.80
ThermoPlan HLz T		913	17.5	Alzenau	0.420		12		1.80
ThermoPlan TS Quadrat		993	24.0	Alzenau	0.390		12		1.90
Plan-Schallschutz-Verfüll	Concrete (Note 8)	911	17.5		0.960		12		2.20
Plan-Schallschutz-Verfüll	Concrete (Note 8)	911	24.0		0.960		12		2.20
Plan-Schallschutzziegel		913	11.5		0.500		16		2.10
Plan-Schallschutzziegel		913	17.5		0.500		16		2.10
Plan-Schallschutzziegel		913	24.0		0.500		16		2.10
Plan-Schallschutzziegel		913	11.5		0.580		20		2.40
Plan-Schallschutzziegel		913	17.5		0.580		20		2.40
Plan-Schallschutzziegel		913	24.0		0.580		20		2.40

Note 1: Fire protection: This information is based on walls/pillars plastered on both sides/all sides.

Note 2: Fire protection: It may also be necessary to distinguish between room-enclosing and non-room-enclosing and differentiate between load-bearing and non-load-bearing walls.

Note 3: For ThermoPlan S 75 and RX 60/500, the U-values are calculated with 20 mm system lightweight plaster λ 0.10 W/mK on the outside and gypsum lightweight plaster λ 0.30 W/mK on the inside.

Note 4: If necessary, observe lower permissible load for fire design.

NOTE	Characteristic compressive strength (DIN Germany only) fk MPa	NOTE	Group according to Table 3.1 of EN 1996-1-1 (See note 7)	Gross density kg/dm ³	Fire protection (See notes 1 & 2)	Acoustic insulation	NOTE	Remarks	Mean unit strength derived from strength class (for use with BS EN 1996 Eqn. 3.4) fb MPa
4	3.50	4	2	0.70	Brandwand	50.8		Optimised for sound insulation	12.50
4	3.50	4	3	0.70	Brandwand	50.8		Optimised for sound insulation	12.50
4	3.50	4	2	0.70	Brandwand	48.2		Optimised for sound insulation	15.00
4	3.50	4	2	0.70	Brandwand	50.8		Optimised for sound insulation	15.00
	2.30		3	0.65	F 30A				10.00
	2.30		3	0.65	F 90A				10.00
4	2.70	4	2	0.75	Brandwand	49.4		Optimised for sound insulation	12.50
4	2.70	4	2	0.75	Brandwand	51.3		Optimised for sound insulation	12.50
4	2.70	4	2	0.75	Brandwand			Optimised for sound insulation	12.50
4	3.50	4	2	0.75	Brandwand	49.4		Optimised for sound insulation	15.00
4	3.50	4	2	0.75	Brandwand	51.3		Optimised for sound insulation	15.00
4	3.50	4	2	0.75	Brandwand			Optimised for sound insulation	15.00
	3.70		2	0.75	Brandwand	49.5		Optimised for sound insulation	12.50
	3.70		2	0.75	Brandwand			Optimised for sound insulation	12.50
	3.70		3	0.75	F 30 A	48.3		Optimised for sound insulation	12.50
	3.70		3	0.75	Brandwand	49.5		Optimised for sound insulation	12.50
	3.70		3	0.75	Brandwand	51.0	5	Optimised for sound insulation	12.50
	4.00		3	0.75	F 30 A	48.3		Optimised for sound insulation	15.00
	4.00		3	0.75	Brandwand	49.5		Optimised for sound insulation	15.00
	4.00		3	0.75	Brandwand	51.0	5	Optimised for sound insulation	15.00
	3.40		2	0.70	F 30A			DISCONTINUED ITEM. Refer to supplier	12.50
	3.40		2	0.70	F 90A			DISCONTINUED ITEM. Refer to supplier	12.50
	3.40		2	0.70	F 90A			DISCONTINUED ITEM. Refer to supplier	12.50
	3.40		2	0.70	F 90A			DISCONTINUED ITEM. Refer to supplier	12.50
	3.90		2	0.70	F 30A			DISCONTINUED ITEM. Refer to supplier	15.00
	3.90		2	0.70	F 90A			DISCONTINUED ITEM. Refer to supplier	15.00
	3.90		2	0.70	F 90A			DISCONTINUED ITEM. Refer to supplier	15.00
	3.90		2	0.70	F 90A			DISCONTINUED ITEM. Refer to supplier	15.00
	4.70		2	0.80					15.00
	4.70		2	0.80	F 90A			For all German seismic zones.	15.00
	5.00		2	0.80	Brandwand			For all German seismic zones.	15.00
	5.00		2	0.80	Brandwand			For all German seismic zones.	15.00
	4.70		2	0.90				For all German seismic zones.	15.00
	4.70		2	0.90	F 90A			For all German seismic zones.	15.00
	4.70		2	0.90	Brandwand			For all German seismic zones.	15.00
	5.00		2	0.80	Brandwand			For all German seismic zones.	15.00
	5.80		3 ⁽⁸⁾	0.8/1.8	Brandwand	55.5		For all German seismic zones.	15.00
	5.80		3 ⁽⁸⁾	0.8/2.0	Brandwand	60.5		For all German seismic zones.	15.00
	5.50		2	1.20	F 90A	46.1		For all German seismic zones.	20.00
	5.50		2	1.20	Brandwand	50.9		For all German seismic zones.	20.00
	5.50		2	1.20	Brandwand	54.6		For all German seismic zones.	20.00
	6.30		2	1.40	F 90A	47.5		For all German seismic zones.	25.00
	6.30		2	1.40	Brandwand	52.3		For all German seismic zones.	25.00
	6.30		2	1.40	Brandwand	56.1		For all German seismic zones.	25.00

Note 5: Approximate value.

Note 6: For strength class and compressive strength, the product given in brackets (..) are available on request.

Note 7: Group in accordance with BS-EN-1996-1-1 is determined according to Table 3.1, on the basis of the ratio of voids (holes) and the thickness of webs and shells. Shell and web thickness in direction of the the plane of the wall is given precedence. The Category is taken as Category I (BE EN 771-1 & BE EN a996-1-1).

Note 8: Plan-Schallschutzziegel - Grouped according to Table 3.1 of BS EN 1996 but this is largely irrelevant if the unit is filled with concrete as intended.



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