## **HELUZ 20 grinded**

## USE

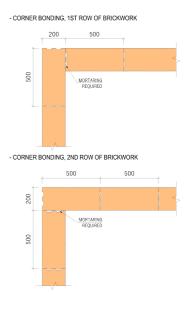
Ground bricks laid on system thin-layer mortar designed for protected load-bearing and non-load-bearing brickwork.

## **GENERAL INFORMATION**

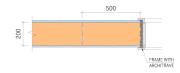
GENERAL INFORMATION				
Manufacturing plant	Hevlín II.			
Compressive strength (MPa)	10			
λ <sub>10,dry,unit</sub> (W/(m.K))	0,241			
Dimensions I x w x h (mm)	497 x 200 x 249			
Reaction to fire class	A1			
Bulk density (kg/m <sup>3</sup> )	660			
Average weight inf. (kg)	16,3			
Additional brick production (yes/no)	No			
MASONRY PROPERTIES ON MORTAR	SBC	SB	PU	SIDI
Bricks consumption per 1 m <sup>2</sup> (pcs)	8	8	8	8
Bricks consumption per 1 m <sup>3</sup> (pcs)	40	40	40	40
Mortar consumption (kg/m <sup>2</sup> , m <sup>2</sup> /dose, kg/m <sup>2</sup> )	2,13	2,62	5,0	1,04
THERMAL PROPERTIES				
Λ <sub>design, mas</sub> (W/(m.K))	0,252	0,26	0,252	0,253
U <sub>design, mas</sub> (W/(m <sup>2</sup> .K)) without plasters	0,95	0,97	0,95	0,95
$U_{design, mas}$ (W/(m <sup>2</sup> .K)) with plasters	0,92	0,94	0,92	0,93
$U_{dry, mas}$ (W/(m <sup>2</sup> .K)) with plasters	0,89	0,9	0,89	0,9
Diffusion resistance factor μ (-)	5/10	5/10	5/10	5/10
Specific heat capacity c (kJ/(kg.K))	1,0	1,0	1,0	1,0
FIRE RESISTANCE				
Wall plastered on both sides	REI 90	REI 90	EI 60	EI 120
Wall utilisation degree $\alpha$	1,0	1,0	NPD	NPD
	405	405	405	405
Surface weight of walls with plasters (kg/m <sup>2</sup> )	185 2	185 2	185 2	185 2
A group of masonry elements Masonry element strength (MPa)	10	10	10	10
Compressive strength of masonry $f_{\mu}$ (MPa)	3,9	3	1,9	3
Coefficient of elasticity $K_{e}$	1000	1000	600	700
Initial shear strength of masonry $f_{vk0}$ (MPa)	0,3	0,3	0,12	0,3
initial shear strength of masoning r <sub>vk0</sub> (wra)	0,5	0,5	0,12	0,5
SOUNDPROOFING				
Weighted sound reduction index R <sub>w</sub> (dB)	47	47	10	10
Measured/informative value	47		46 indicative	46 indicative
Surface weight of walls with plasters (kg/m <sup>2</sup> )	measured	measured		
Bulk density of mortar min. (kg/m <sup>3</sup> )	152 900	152 900	NPD NPD	NPD NPD
Bulk density of plaster min. $(kg/m^3)$	900 1400	900 1400	NPD	NPD
	1400	1400	NPD	NPD



## **CORNER AND LINING CONNECTION**



- BONDING AT THE DOOR REVEAL, 1ST ROW OF BRICKWORK



- BONDING AT THE DOOR REVEAL, 2ND ROW OF BRICKWORK



General information: The masonry properties are determined by the combination of the masonry element, mortar and surface treatment. It is therefore necessary to respect the principles for designing and building structures in accordance with the HELUZ documents and general regulations and technical standards. Detailed and up-to-date information, which always takes precedence over the technical specification, is available at constructionselector.heluz.com. The technical specifications contain a summary of selected product and structure properties to provide basic information for structure design. Unless otherwise stated, the individual data is based on harmonised European standards and their localisation for the Czech Republic. Product properties are given according to the harmonised EN 771-1:2011+A1:2015 standard. All of the declared product parameters are listed in the declaration of performance.

1x15

2x15

1x15

1x15

Masonry properties for mortar are given for the selected mortar types in the individual columns. The mortar consumption corresponds to the execution of the masonry in accordance with the technological regulations - HELUZ Performance Manual. Indicative labour content excludes scaffolding.

**Thermal properties.** The values are stated in accordance with EN 1745.  $\Lambda_{design, mas}$  and  $U_{design, mas}$  correspond to the design values. Coating are considered with the thickness of 2 x 15 mm with  $\Lambda$  = 0.88 W/m.K. The heat transfer resistance used for internal structures is  $R_{si}$  = 0.13 m<sup>2</sup>.K/W.  $U_{dry,mas}$  indicates the values for coated brickwork with the bricks and mortar in the dry state.

Fire resistance is stated for walls with rendering on both sides. The HELUZ SBC and HELUZ SB mortar values are stated in accordance with EN 1996-1-2, Annex B or based on test results. HELUZ Foam (PU) and HELUZ SIDI mortars are determined based on test results.

Statics: The group of masonry elements is specified according to EN 1996-1-1. The mechanical properties of the brickwork are based on calculations according to EN 1996-1-1 and test results. The HELUZ Foam (PU) and HELUZ SIDI mortars are determined based on test results.

Soundproofing: R<sub>w</sub> values are determined by both wall measurement in an accredited laboratory at the specified material composition of the wall and surface weight of the masonry. The indicative values correspond to a qualified estimate based on test results of a similar brick type and material composition of the structure.

Plaster thickness (mm)