

TECHNICAL CARD

ELEMENTS 3E EKO+

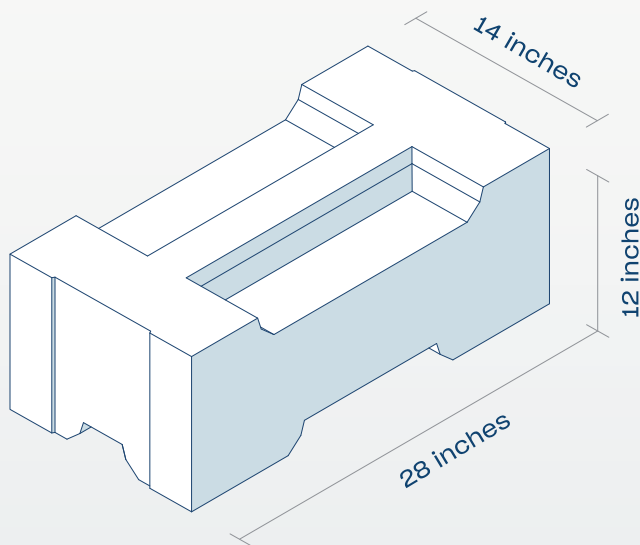
Elements designed for the erection of single-layer structural walls.



ECO-FRIENDLY
CONSTRUCTION

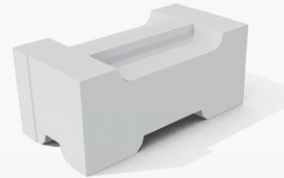
SYSTEM 3E IS BASED ON 6 BASIC ELEMENTS
GROUPED ACCORDING TO THEIR PURPOSE

DIMENSIONS OF THE BASIC ELEMENT

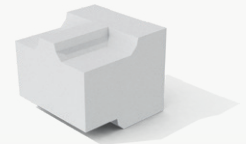


Flatness of the laying surface: < 0.04 in
 Parallelism of the laying surface: < 0.04 in
 Mass of a single piece: 70,5 lbs/element

6 BASIC ELEMENTS



BASIC
ELEMENT S1 WP
purpose: infill



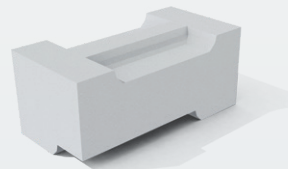
HALF
ELEMENT S 1/2 W
purpose: infill



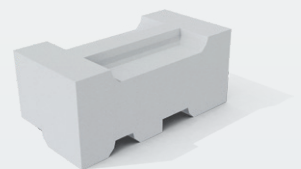
ENDING
ELEMENT SZ/EO WP
purpose: top structure end



STARTING
ELEMENT SO WP
purpose: foundation slab surface



LEFT
CORNER ELEMENT SNL
purpose: corner laying



RIGHT
CORNER ELEMENT SNP
purpose: corner laying

SYSTEM 3E EKO+ is currently the warmest material for building:

- ✓ energy-saving,
- ✓ zero-energy,
- ✓ plus-energy,
- ✓ passive houses.



WITHOUT
INSULATION



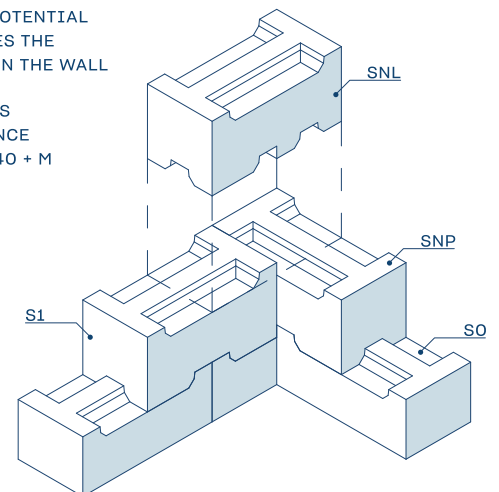
BONDING WITHOUT
MORTAR AND GLUE



10 sq ft WALL
BUILT IN 4.5 min

R = 28.7 (sq ft K)/W

- ✓ NO SKILLED LABOUR
REQUIRED AS IT IS
SELF-INTERLOCKING
- ✓ ANTI-SEISMIC POTENTIAL
AS IT ELIMINATES THE
WEAKEST LINK IN THE WALL
- ✓ THE 3E WALL HAS
A FIRE RESISTANCE
CLASS OF REI 240 + M



ELEMENTS 3E EKO+

Elements designed for the erection of single-layer structural walls.



ECO-FRIENDLY
CONSTRUCTION

PERFORMANCE CHARACTERISTICS

Density	19.35 pcf
Characteristic compressive strength	≥ 217.56 psi
Water absorption due to capillary rise	0,008 lb/ft ² · s ^{0.5}
Dimensional stability. Moisture expansion	< 0.0036 in/ft
Reaction to fire	non-combustible
Water vapour permeability, diffusion resistance factor	< 15 μ
Freeze/thaw durability 20 cycles	no damage

Source: Technical recommendation SYSTEM 3E EKO+ RT2021/10/22

TECHNICAL CONSTRUCTION PARAMETERS

Characteristic compressive strength of masonry	$f_k = 147.94$ psi
Characteristic value of the tensile strength (when the upper edge is restrained) at bending in the case of failure in the perpendicular plane	$f_{xk \perp} = 15.95$ psi
Characteristic value of the tensile strength (when the upper edge is restrained) at bending for failure in the parallel plane	$f_{xk \parallel} = 44.96$ psi
Characteristic shear strength of masonry	$f_{vk} = 10.15$ psi

Source: Technical recommendation SYSTEM 3E EKO+ RT2021/10/22

LOGISTICAL DATA

Consumption of 10,8 sq ft	0,53 element/sq ft
Wall area per pallet	45,21 sq ft
Number of elements per pallet	to 24 element
Approximate weight of the pallet	126 - 142 st
Weight of a single element	5.03 st
Weight of 1 sq ft	2.67 st/sq ft

THERMAL PROPERTIES

Thermal conductivity coefficient (λ)	0,49932 Btu/h·ft·°F
Thermal resistance coefficient R	28.7 (sq ft K)/W

ACOUSTIC PROPERTIES

	$R_w (C, C_w)$, [dB]	$R_{A,1}$, [dB]	$R_{A,2}$, [dB]
Non-plastered wall	45 (-1; -4)	44	41
Plastered wall*	45 (-1; -4)	44	41

Source: Technical recommendation SYSTEM 3E EKO+ RT2021/10/22
* Wall covered on both sides with 1 cm thick cement-lime plaster

FIRE RESISTANCE CLASS

Loaded to 100% of the design resistance*	4 Fire rating hours (REI 240 + M)
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Source: Technical recommendation SYSTEM 3E EKO+ RT2021/10/22
* Non-plastered wall

