

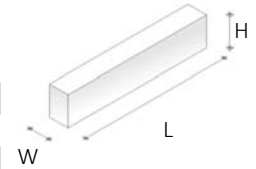
### EVOLUTION IDRO type SMOOTH

480 kg/m<sup>3</sup>  
0,110 W/mK



#### Description

Solid element for masonry in the shape of a rectangular cuboid, made by autoclaved aerated concrete (AAC), white coloured, smooth, hydrophobic in bulk, industrially produced, suitable for the construction of both external and internal not load-bearing masonries, also in high-seismic areas, to be plastered.  
Element of Group 1 according to the EN 1996-1-1.



		W	L	H
Manufacturing dimensions	mm	80/200	600	125
Tolerance category TLMA	mm	± 2	± 3	± 2

#### Technical data

Description	UdM	symbol						
<b>Block width</b>	<b>mm</b>	<b>W</b>	<b>80</b>	<b>100</b>	<b>120</b>	<b>150</b>	<b>200</b>	
Mechanical – physical characteristics block	Dry density	kg/m <sup>3</sup>	480 ± 50					
	Dry block's weight	kg	± 5%	2,90	3,60	4,30	5,40	7,20
	Dimensional stability for humidity	mm/m	ε <sub>cs,ref</sub> ≤	0,06				
	Mean compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>m</sub> >	3,1 categ. I	3,3 categ. I		3,5 categ. I	3,8 categ. I
	Characteristic compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	2,1 categ. I	2,2 categ. I		2,4 categ. I	2,6 categ. I
	Characteristic compressive strength orthogonal <sup>2)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	3,3 categ. I				
	Normalized compressive strength	N/mm <sup>2</sup>	f <sub>b</sub> ≥	4,8 categ. I				
Reaction to fire	Euroclass		A1					
Fire resistance			El 120	El 180				
Mechanical characteristics masonry <sup>3)</sup>	Mean density masonry <sup>4)</sup>	kg/m <sup>3</sup>	Gm	600 ± 60				
	Characteristic flexural strength adhesion	N/mm <sup>2</sup>	f <sub>xk1</sub> /f <sub>xk2</sub>	0,15/0,30				
	Mean compressive strength	N/mm <sup>2</sup>	f <sub>m</sub>	1,7				
	Characteristic compressive strength	N/mm <sup>2</sup>	f <sub>k</sub>	1,2				
	Mean initial shear strength	N/mm <sup>2</sup>	f <sub>vm</sub>	0,14				
	Characteristic initial shear strength (τ <sub>0</sub> in N/cm <sup>2</sup> )	N/mm <sup>2</sup>	f <sub>vk0</sub>	0,10				
	Poisson coefficient	N/mm <sup>2</sup>	ν	1				
	Modulus of normal secant elasticity	N/mm <sup>2</sup>	E	1726				
Thermo – hygrometric characteristics	Shear modulus	N/mm <sup>2</sup>	G	690				
	Dry thermal conductivity	W/mK	λ <sub>10,dry</sub>	0,110				
	Measured according to the standard EN 12667							
	Stationary thermal transmittance <sup>5)</sup>	W/m <sup>2</sup> K	U	1,114	0,927	0,793	0,652	1,114
	Periodic thermal transmittance <sup>6)</sup>	W/m <sup>2</sup> K	Y <sub>IE</sub>	1,602	0,839	0,666	0,467	1,602
	Phase shift	h	S	1h 49'	2h 37'	3h 31'	4h 57'	1h 49'
	Attenuation factor		f <sub>a</sub>	0,953	0,906	0,840	0,715	0,953
	Internal thermal capacity	kJ/m <sup>2</sup> K	C	16,51	20,09	22,84	25,22	16,51
Acoustics	Specific heat	kJ/kgK	c	1,0				
	Water vapour diffusion resistance factor		μ	5 (wet-cup) – 10 (dry-cup)				
	Water vapour permeability	kg/msPa	δ <sub>a</sub>	32 x 10 <sup>-12</sup>				
	Superficial mass with plaster and mortars <sup>7)</sup>	kg/m <sup>2</sup>	M <sub>s</sub>	71	81	91	105	71
Weighted sound reduction index <sup>8)</sup>	dB	R <sub>w</sub>	38	40	41	43	38	

#### Note:

1) In the direction orthogonal (⊥) to the face L x W that is in the vertical direction.

2) In the direction orthogonal (⊥) to the face L x H that is in the horizontal direction.

3) Masonry made with cement-based adhesive mortar Incollarsa type M5 thin-layer T in compliance with UNI EN 998-2. Horizontal and vertical joint with a thickness between 0,5 mm and 3 mm distributed over the entire horizontal and vertical face of the block.

4) Weight to be used for structural calculations (includes residual humidity in steady state).

5) Transmittance value determined without plaster, with inside surface resistance of 0,13 m<sup>2</sup>K/W and outside surface resistance equal to 0,04 m<sup>2</sup>K/W in compliance with UNI EN ISO 6946.

#### Warnings:

Protect the masonry from rain and frost during installation until the plaster is applied.

The Ekoru s.r.l. reserves the right to make technical changes of any kind without prior notice. This technical data sheet cancel and replace the previous review.

6) It is the index of thermal inertia, it is the product of the stationary transmittance by the attenuation factor. In Italy the limit is Y<sub>IE</sub> < 0,10 W/m<sup>2</sup>K.

7) Value referred to masonry with the addition of thk. 15 mm on each side of MULTICEM cementitious plaster with a mass of about 1.100 kg/m<sup>2</sup> in compliance with UNI EN 998-1.

8) Value calculated with mass laws suggested by the EAACA through the use of the formula R<sub>w</sub> = 32,6 log M<sub>s</sub> - 22,5 [dB] for walls of surface mass M<sub>s</sub> < 150 kg/m<sup>2</sup> and R<sub>w</sub> = 26,1 log M<sub>s</sub> - 8,4 [dB] for surface mass wall M<sub>s</sub> > 150 kg/m<sup>2</sup> (considered mass of note 7)).

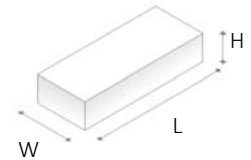
### EVOLUTION IDRO type SMOOTH

480 kg/m<sup>3</sup>  
0,110 W/mK



#### Description

Solid element for masonry in the shape of a rectangular cuboid, made by autoclaved aerated concrete (AAC), white coloured, smooth, hydrophobic in bulk, industrially produced, suitable for the construction of both external and internal masonries, load-bearing in low- seismic areas and not load-bearing also in high-seismic areas, to be plastered. Element of Group 1 according to the EN 1996-1-1.



Dimensions		W	L	H
Manufacturing dimensions	mm	240/500	600	125
Tolerance category TLMA	mm	± 2	± 3	± 2

#### Technical data

Description	UdM	symbol									
<b>Block width</b>	<b>mm</b>	<b>W</b>	<b>240</b>	<b>300</b>	<b>350</b>	<b>375</b>	<b>400</b>	<b>450</b>	<b>500</b>		
Mechanical – physical characteristics block	Dry density	kg/m <sup>3</sup>	480 ± 50								
	Dry block's weight	kg	± 5%	8,65	10,80	12,60	13,50	14,40	16,20	18,00	
	Dimensional stability for humidity	mm/m	ε <sub>cs,ref</sub> ≤	0,06							
	Mean compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>m</sub> >	3,8 categ. I		4,1 categ. I					
	Characteristic compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	2,6 categ. I		2,8 categ. I					
	Characteristic compressive strength orthogonal <sup>2)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥			3,3 categ. I					
	Normalized compressive strength	N/mm <sup>2</sup>	f <sub>b</sub> ≥			4,8 categ. I					
Reaction to fire	Euroclass		A1								
Fire resistance			EI 240 – REI 180				EI 240 – REI 240				
Mechanical characteristics masonry <sup>3)</sup>	Mean density masonry <sup>4)</sup>	kg/m <sup>3</sup>	G <sub>m</sub>	600 ± 60							
	Characteristic flexural strength adhesion	N/mm <sup>2</sup>	f <sub>xk1</sub> /f <sub>xk2</sub>	0,15/0,30							
	Mean compressive strength	N/mm <sup>2</sup>	f <sub>m</sub>	1,7							
	Characteristic compressive strength	N/mm <sup>2</sup>	f <sub>k</sub>	1,2							
	Mean initial shear strength	N/mm <sup>2</sup>	f <sub>vm</sub>	0,14							
	Characteristic initial shear strength (τ <sub>0</sub> in N/cm <sup>2</sup> )	N/mm <sup>2</sup>	f <sub>vk0</sub>	0,10							
	Poisson coefficient	N/mm <sup>2</sup>	ν	1							
	Modulus of normal secant elasticity	N/mm <sup>2</sup>	E	1726							
Thermo – hygrometric characteristics	Shear modulus	N/mm <sup>2</sup>	G	690							
	Dry thermal conductivity	W/mK	λ <sub>10,dry</sub>	0,110							
	Measured according to the standard EN 12667										
	Stationary thermal transmittance <sup>5)</sup>	W/m <sup>2</sup> K	U	0,425	0,345	0,298	0,279	0,263	0,235	0,212	
	Periodic thermal transmittance <sup>6)</sup>	W/m <sup>2</sup> K	Y <sub>IE</sub>	0,151	0,071	0,038	0,028	0,020	0,011	0,006	
	Phase shift	h	S	9h 20'	12h13'	14h37'	15h49'	17h1'	19h26'	21h50'	
	Attenuation factor		f <sub>a</sub>	0,356	0,206	0,127	0,099	0,077	0,046	0,027	
Acoustics	Internal thermal capacity	kJ/m <sup>2</sup> K	C	24,73	23,33	22,70	22,55	22,47	22,45	22,49	
	Specific heat	kJ/kgK	c	1,0							
	Water vapour diffusion resistance factor		μ	5 (wet-cup) – 10 (dry-cup)							
	Water vapour permeability	kg/msPa	δ <sub>a</sub>	32 x 10 <sup>-12</sup>							
Acoustics	Superficial mass with plaster and mortars <sup>7)</sup>	kg/m <sup>2</sup>	M <sub>s</sub>	148	177	201	213	225	249	273	
	Weighted sound reduction index <sup>8)</sup>	dB	R <sub>w</sub>	48	50	52	52	53	54	55	

#### Note:

- 1) In the direction orthogonal (⊥) to the face L x W that is in the vertical direction.
- 2) In the direction orthogonal (⊥) to the face L x H that is in the horizontal direction.
- 3) Masonry made with cement-based adhesive mortar Incollarsa type M5 thin-layer T in compliance with UNI EN 998-2. Horizontal and vertical joint with a thickness between 0,5 mm and 3 mm distributed over the entire horizontal and vertical face of the block.
- 4) Weight to be used for structural calculations (includes residual humidity in steady state).
- 5) Transmittance value determined without plaster, with inside surface resistance of 0,13 m<sup>2</sup>K/W and outside surface resistance equal to 0,04 m<sup>2</sup>K/W in compliance with UNI EN ISO 6946.

6) It is the index of thermal inertia, it is the product of the stationary transmittance by the attenuation factor. In Italy the limit is Y<sub>IE</sub> < 0,10 W/m<sup>2</sup>K.

7) Value referred to masonry with the addition of thk. 15 mm on each side of MULTICEM cementitious plaster with a mass of about 1.100 kg/m<sup>2</sup> in compliance with UNI EN 998-1.

8) Value calculated with mass laws suggested by the EAACA through the use of the formula R<sub>w</sub> = 32,6 log M<sub>s</sub> - 22,5 [dB] for walls of surface mass M<sub>s</sub> < 150 kg/m<sup>2</sup> and R<sub>w</sub> = 26,1 log M<sub>s</sub> - 8,4 [dB] for surface mass wall M<sub>s</sub> > 150 kg/m<sup>2</sup> (considered mass of note 7)).

#### Warnings:

Protect the masonry from rain and frost during installation until the plaster is applied.

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### ACTIVE type SMOOTH FOR THERMAL BRIDGES

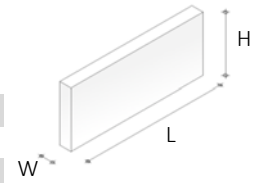
300 kg/m<sup>3</sup>  
0,070 W/mK



#### Description

Solid element for masonry in the shape of a rectangular cuboid, made by autoclaved aerated concrete (AAC), white coloured, smooth, industrially produced, usable as a component for thermal insulation of thermal bridges, to be plastered.

Element of Group 1 according to the EN 1996-1-1.



		W	L	H
Manufacturing dimensions	mm	50/100	600	250
Tolerance category TLMA	mm	± 2	± 3	± 2

#### Technical data

Description	UdM	symbol		
<b>Block width</b>	<b>mm</b>	<b>W</b>	<b>50</b>	<b>100</b>
Mechanical – physical characteristics block	Dry density	kg/m <sup>3</sup>	300 ± 50	
	Dry block's weight	kg	± 5%	2,25 / 4,50
	Dimensional stability for humidity	mm/m	ε <sub>cs,ref</sub> ≤	0,06
	Mean compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>m</sub> >	1,3 categ. I / 1,4 categ. I
	Characteristic compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	1,1 categ. I / 1,2 categ. I
	Characteristic compressive strength orthogonal <sup>2)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	1,4 categ. I
	Normalized compressive strength	N/mm <sup>2</sup>	f <sub>b</sub> ≥	2,0 categ. I
Reaction to fire	Euroclass		A1	
Fire resistance	-			
Mechanical characteristics masonry <sup>3)</sup>	Mean density masonry <sup>4)</sup>	kg/m <sup>3</sup>	Gm	400 ± 50
	Characteristic flexural strength adhesion	N/mm <sup>2</sup>	f <sub>xk1</sub> /f <sub>xk2</sub>	
	Mean compressive strength	N/mm <sup>2</sup>	f <sub>m</sub>	
	Characteristic compressive strength	N/mm <sup>2</sup>	f <sub>k</sub>	
	Mean initial shear strength	N/mm <sup>2</sup>	f <sub>vm</sub>	
	Characteristic initial shear strength (τ <sub>0</sub> in N/cm <sup>2</sup> )	N/mm <sup>2</sup>	f <sub>vk0</sub>	
	Poisson coefficient	N/mm <sup>2</sup>	ν	
	Modulus of normal secant elasticity	N/mm <sup>2</sup>	E	
Shear modulus	N/mm <sup>2</sup>	G		
Thermo – hygrometric characteristics	Dry thermal conductivity Measured according to the standard EN 12667	W/mK	λ <sub>10,dry</sub>	0,070
	Stationary thermal transmittance <sup>5)</sup>	W/m <sup>2</sup> K	U	1,131 / 0,626
	Periodic thermal transmittance <sup>6)</sup>	W/m <sup>2</sup> K	Y <sub>IE</sub>	1,122 / 0,578
	Phase shift	h	S	0h 43' / 2h 22'
	Attenuation factor		f <sub>a</sub>	0,933 / 0,925
	Internal thermal capacity	kJ/m <sup>2</sup> K	C	6,69 / 13,19
	Specific heat	kJ/kgK	c	1,0
Water vapour diffusion resistance factor		μ	5 (wet-cup) – 10 (dry-cup)	
Water vapour permeability	kg/msPa	δ <sub>a</sub>	32 x 10 <sup>-12</sup>	
Acoustics	Superficial mass with plaster and mortars <sup>7)</sup>	kg/m <sup>2</sup>	M <sub>s</sub>	48 / 63
	Weighted sound reduction index <sup>8)</sup>	dB	R <sub>w</sub>	32 / 36

#### Note:

1) In the direction orthogonal (⊥) to the face L x W that is in the vertical direction.

2) In the direction orthogonal (⊥) to the face L x H that is in the horizontal direction.

3) Masonry made with cement-based adhesive mortar Incollarsa type M5 thin-layer T in compliance with UNI EN 998-2. Horizontal and vertical joint with a thickness between 0,5 mm and 3 mm distributed over the entire horizontal and vertical face of the block.

4) Weight to be used for structural calculations (includes residual humidity in steady state).

5) Transmittance value determined without plaster, with inside surface resistance of 0,13 m<sup>2</sup>K/W and outside surface resistance equal to 0,04 m<sup>2</sup>K/W in compliance with UNI EN ISO 6946.

#### Warnings:

Protect the masonry from rain and frost during installation until the plaster is applied.

The Ekoru s.r.l. reserves the right to make technical changes of any kind without prior notice. This technical data sheet cancel and replace the previous review.

6) It is the index of thermal inertia, it is the product of the stationary transmittance by the attenuation factor. In Italy the limit is Y<sub>IE</sub> < 0,10 W/m<sup>2</sup>K.

7) Value referred to masonry with the addition of thk. 15 mm on each side of MULTICEM cementitious plaster with a mass of about 1.100 kg/m<sup>2</sup> in compliance with UNI EN 998-1.

8) Value calculated with mass laws suggested by the EAACA through the use of the formula R<sub>w</sub> = 32,6 log M<sub>s</sub> - 22,5 [dB] for walls of surface mass M<sub>s</sub> < 150 kg/m<sup>2</sup> and R<sub>w</sub> = 26,1 log M<sub>s</sub> - 8,4 [dB] for surface mass wall M<sub>s</sub> > 150 kg/m<sup>2</sup> (considered mass of note 7)).

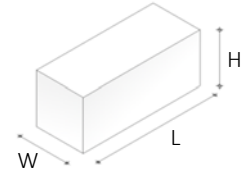
### ACTIVE type SMOOTH

300 kg/m<sup>3</sup>  
0,070 W/mK



#### Description

Solid element for masonry in the shape of a rectangular cuboid, made by autoclaved aerated concrete (AAC), white coloured, smooth, industrially produced, suitable for the construction of both external and internal masonries, not load-bearing also in high-seismic areas, to be plastered.  
Element of Group 1 according to the EN 1996-1-1.



		W	L	H
Manufacturing dimensions	mm	240/500	600	250
Tolerance category TLMA	mm	± 2	± 3	± 2

#### Technical data

Description		UdM	symbol							
<b>Block width</b>		<b>mm</b>	<b>W</b>	<b>240</b>	<b>300</b>	<b>350</b>	<b>375</b>	<b>400</b>	<b>450</b>	<b>500</b>
Mechanical – physical characteristics block	Dry density	kg/m <sup>3</sup>		300 ± 50						
	Dry block's weight	kg	± 5%	10,80	13,50	15,75	16,90	18,00	20,25	22,50
	Dimensional stability for humidity	mm/m	ε <sub>cs,ref</sub> ≤	0,06						
	Mean compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>m</sub> >	1,6 categ. I		1,8 categ. I				
	Characteristic compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	1,4 categ. I		1,5 categ. I				
	Characteristic compressive strength orthogonal <sup>2)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥			1,4 categ. I				
	Normalized compressive strength	N/mm <sup>2</sup>	f <sub>b</sub> ≥			2,0 categ. I				
Reaction to fire	Euroclass		A1							
Fire resistance			EI240							
Mechanical characteristics masonry <sup>3)</sup>	Mean density masonry <sup>4)</sup>	kg/m <sup>3</sup>	G <sub>m</sub>	400 ± 50						
	Characteristic flexural strength adhesion	N/mm <sup>2</sup>	f <sub>xk1</sub> /f <sub>xk2</sub>							
	Mean compressive strength	N/mm <sup>2</sup>	f <sub>m</sub>							
	Characteristic compressive strength	N/mm <sup>2</sup>	f <sub>k</sub>							
	Mean initial shear strength	N/mm <sup>2</sup>	f <sub>vm</sub>							
	Characteristic initial shear strength (τ <sub>0</sub> in N/cm <sup>2</sup> )	N/mm <sup>2</sup>	f <sub>vk0</sub>							
	Poisson coefficient	N/mm <sup>2</sup>	ν							
	Modulus of normal secant elasticity	N/mm <sup>2</sup>	E							
Shear modulus	N/mm <sup>2</sup>	G								
Thermo – hygrometric characteristics	Dry thermal conductivity Measured according to the standard EN 12667	W/mK	λ <sub>10,dry</sub>	0,070						
	Stationary thermal transmittance <sup>5)</sup>	W/m <sup>2</sup> K	U	0,278	0,224	0,193	0,181	0,170	0,152	0,137
	Periodic thermal transmittance <sup>6)</sup>	W/m <sup>2</sup> K	Y <sub>IE</sub>	0,107	0,050	0,027	0,020	0,014	0,008	0,004
	Phase shift	h	S	8h 58'	11h 49'	14h 12'	15h 24'	16h 35'	18h 58'	21h 22'
	Attenuation factor		f <sub>a</sub>	0,384	0,225	0,140	0,109	0,085	0,051	0,030
	Internal thermal capacity	kJ/m <sup>2</sup> K	C	16,70	15,75	15,29	15,18	15,12	15,10	15,12
	Specific heat	kJ/kgK	c	1,0						
	Water vapour diffusion resistance factor		μ	5 (wet-cup) – 10 (dry-cup)						
Water vapour permeability	kg/msPa	δ <sub>a</sub>	32 x 10 <sup>-12</sup>							
Acoustics	Superficial mass with plaster and mortars <sup>7)</sup>	kg/m <sup>2</sup>	M <sub>s</sub>	105	123	138	146	153	168	183
	Weighted sound reduction index <sup>8)</sup>	dB	R <sub>w</sub>	43	46	47	48	49	50	51

#### Note:

1) In the direction orthogonal (⊥) to the face L x W that is in the vertical direction.

2) In the direction orthogonal (⊥) to the face L x H that is in the horizontal direction.

3) Masonry made with cement-based adhesive mortar Incollarsa type M5 thin-layer T in compliance with UNI EN 998-2. Horizontal and vertical joint with a thickness between 0,5 mm and 3 mm distributed over the entire horizontal and vertical face of the block.

4) Weight to be used for structural calculations (includes residual humidity in steady state).

5) Transmittance value determined without plaster, with inside surface resistance of 0,13 m<sup>2</sup>K/W and outside surface resistance equal to 0,04 m<sup>2</sup>K/W in compliance with UNI EN ISO 6946.

#### Warnings:

Protect the masonry from rain and frost during installation until the plaster is applied.

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6) It is the index of thermal inertia, it is the product of the stationary transmittance by the attenuation factor. In Italy the limit is Y<sub>IE</sub> < 0,10 W/m<sup>2</sup>K.

7) Value referred to masonry with the addition of thk. 15 mm on each side of MULTICEM cementitious plaster with a mass of about 1.100 kg/m<sup>2</sup> in compliance with UNI EN 998-1.

8) Value calculated with mass laws suggested by the EAACA through the use of the formula R<sub>w</sub> = 32,6 log M<sub>s</sub> - 22,5 [dB] for walls of surface mass M<sub>s</sub> < 150 kg/m<sup>2</sup> and R<sub>w</sub> = 26,1 log M<sub>s</sub> - 8,4 [dB] for surface mass wall M<sub>s</sub> > 150 kg/m<sup>2</sup> (considered mass of note 7)).

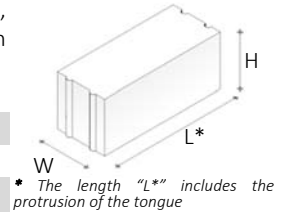
### ACTIVE type TONGUE AND GROOVE

300 kg/m<sup>3</sup>  
0,070 W/mK



#### Description

Solid element for masonry in the shape of a rectangular cuboid, made by autoclaved aerated concrete (AAC), white coloured, with male/female vertical joints, industrially produced, suitable for the construction of both external and internal masonries, not load-bearing also in high-seismic areas, to be plastered.  
Element of Group 1 according to the EN 1996-1-1.



Dimensions		W	L*	H
Manufacturing dimensions	mm	240/500	600	250
Tolerance category TLMA	mm	± 2	± 3	± 2

#### Technical data

Description	UdM	symbol							
<b>Block width</b>	<b>mm</b>	<b>W</b>	<b>240</b>	<b>300</b>	<b>350</b>	<b>400</b>	<b>450</b>	<b>500</b>	
Mechanical – physical characteristics block	Dry density	kg/m <sup>3</sup>	300 ± 50						
	Dry block's weight	kg	± 5%	10,60	13,25	15,50	17,70	19,90	22,15
	Dimensional stability for humidity	mm/m	ε <sub>cs,ref</sub> ≤	0,06					
	Mean compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>m</sub> >	1,6 categ. I		1,8 categ. I			
	Characteristic compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	1,4 categ. I		1,5 categ. I			
	Characteristic compressive strength orthogonal <sup>2)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	1,4 categ. I					
	Normalized compressive strength	N/mm <sup>2</sup>	f <sub>b</sub> ≥	2,0 categ. I					
Reaction to fire	Euroclass		A1						
Fire resistance			EI240						
Mechanical characteristics masonry <sup>3)</sup>	Mean density masonry <sup>4)</sup>	kg/m <sup>3</sup>	Gm	400 ± 50					
	Characteristic flexural strength adhesion	N/mm <sup>2</sup>	f <sub>xk1</sub> /f <sub>xk2</sub>						
	Mean compressive strength	N/mm <sup>2</sup>	f <sub>m</sub>						
	Characteristic compressive strength	N/mm <sup>2</sup>	f <sub>k</sub>						
	Mean initial shear strength	N/mm <sup>2</sup>	f <sub>vm</sub>						
	Characteristic initial shear strength (τ <sub>0</sub> in N/cm <sup>2</sup> )	N/mm <sup>2</sup>	f <sub>vk0</sub>						
	Poisson coefficient	N/mm <sup>2</sup>	ν						
	Modulus of normal secant elasticity	N/mm <sup>2</sup>	E						
Shear modulus	N/mm <sup>2</sup>	G							
Thermo – hygrometric characteristics	Dry thermal conductivity Measured according to the standard EN 12667	W/mK	λ <sub>10,dry</sub>	0,070					
	Stationary thermal transmittance <sup>5)</sup>	W/m <sup>2</sup> K	U	0,278	0,224	0,193	0,170	0,152	0,137
	Periodic thermal transmittance <sup>6)</sup>	W/m <sup>2</sup> K	Y <sub>IE</sub>	0,107	0,050	0,027	0,014	0,008	0,004
	Phase shift	h	S	8h 58'	11h 49'	14h 12'	16h 35'	18h 58'	21h 22'
	Attenuation factor		f <sub>a</sub>	0,384	0,225	0,140	0,085	0,051	0,030
	Internal thermal capacity	kJ/m <sup>2</sup> K	C	16,70	15,75	15,29	15,12	15,10	15,12
	Specific heat	kJ/kgK	c	1,0					
Water vapour diffusion resistance factor		μ	5 (wet-cup) – 10 (dry-cup)						
Water vapour permeability	kg/msPa	δ <sub>a</sub>	32 x 10 <sup>-12</sup>						
Acoustics	Superficial mass with plaster and mortars <sup>7)</sup>	kg/m <sup>2</sup>	M <sub>s</sub>	105	123	138	153	168	183
	Weighted sound reduction index <sup>8)</sup>	dB	R <sub>w</sub>	43	46	47	49	50	51

#### Note:

- 1) In the direction orthogonal (⊥) to the face L x W that is in the vertical direction.
- 2) In the direction orthogonal (⊥) to the face L x H that is in the horizontal direction.
- 3) Masonry made with cement-based adhesive mortar Incollarasa type M5 thin-layer T in compliance with UNI EN 998-2. Horizontal and vertical joint with a thickness between 0,5 mm and 3 mm distributed over the entire horizontal and vertical face of the block.
- 4) Weight to be used for structural calculations (includes residual humidity in steady state).
- 5) Transmittance value determined without plaster, with inside surface resistance of 0,13 m<sup>2</sup>K/W and outside surface resistance equal to 0,04 m<sup>2</sup>K/W in compliance with UNI EN ISO 6946.

- 6) It is the index of thermal inertia, it is the product of the stationary transmittance by the attenuation factor. In Italy the limit is Y<sub>IE</sub> < 0,10 W/m<sup>2</sup>K.

- 7) Value referred to masonry with the addition of thk. 15 mm on each side of MULTICEM cementitious plaster with a mass of about 1.100 kg/m<sup>2</sup> in compliance with UNI EN 998-1.

- 8) Value calculated with mass laws suggested by the EAACA through the use of the formula R<sub>w</sub> = 32,6 log M<sub>s</sub> - 22,5 [dB] for walls of surface mass M<sub>s</sub> < 150 kg/m<sup>2</sup> and R<sub>w</sub> = 26,1 log M<sub>s</sub> - 8,4 [dB] for surface mass wall M<sub>s</sub> > 150 kg/m<sup>2</sup> (considered mass of note 7)).

#### Warnings:

Protect the masonry from rain and frost during installation until the plaster is applied.

The Ekoru s.r.l. reserves the right to make technical changes of any kind without prior notice. This technical data sheet cancel and replace the previous review.

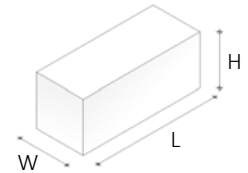
### ENERGY type SMOOTH

350 kg/m<sup>3</sup>  
0,080 W/mK



#### Description

Solid element for masonry in the shape of a rectangular cuboid, made by autoclaved aerated concrete (AAC), white coloured, smooth, industrially produced, suitable for the construction of both external and internal masonries, not load-bearing also in high-seismic areas, to be plastered.  
Element of Group 1 according to the EN 1996-1-1.



		W	L	H
Manufacturing dimensions	mm	240/450	600	250
Tolerance category TLMA	mm	± 2	± 3	± 2

#### Technical data

Description	UdM	symbol							
<b>Block width</b>	<b>mm</b>	<b>W</b>	<b>240</b>	<b>300</b>	<b>350</b>	<b>375</b>	<b>400</b>	<b>450</b>	
Mechanical – physical characteristics block	Dry density	kg/m <sup>3</sup>	350 ± 50						
	Dry block's weight	kg	± 5%	12,60	15,75	18,40	19,70	21,00	23,65
	Dimensional stability for humidity	mm/m	ε <sub>cs,ref</sub> ≤	0,06					
	Mean compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>m</sub> >	2,1 categ. I		2,3 categ. I			
	Characteristic compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	1,6 categ. I		1,7 categ. I			
	Characteristic compressive strength orthogonal <sup>2)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥			1,8 categ. I			
	Normalized compressive strength	N/mm <sup>2</sup>	f <sub>b</sub> ≥			2,6 categ. I			
Reaction to fire	Euroclass		A1						
Fire resistance			EI240						
Mechanical characteristics masonry <sup>3)</sup>	Mean density masonry <sup>4)</sup>	kg/m <sup>3</sup>	Gm	450 ± 50					
	Characteristic flexural strength adhesion	N/mm <sup>2</sup>	f <sub>xk1</sub> /f <sub>xk2</sub>						
	Mean compressive strength	N/mm <sup>2</sup>	f <sub>m</sub>						
	Characteristic compressive strength	N/mm <sup>2</sup>	f <sub>k</sub>						
	Mean initial shear strength	N/mm <sup>2</sup>	f <sub>vm</sub>						
	Characteristic initial shear strength (τ <sub>0</sub> in N/cm <sup>2</sup> )	N/mm <sup>2</sup>	f <sub>vk0</sub>						
	Poisson coefficient	N/mm <sup>2</sup>	ν						
Thermo – hygrometric characteristics	Modulus of normal secant elasticity	N/mm <sup>2</sup>	E						
	Shear modulus	N/mm <sup>2</sup>	G						
	Dry thermal conductivity	W/mK	λ <sub>10,dry</sub>	0,080					
	Measured according to the standard EN 12667								
	Stationary thermal transmittance <sup>5)</sup>	W/m <sup>2</sup> K	U	0,315	0,255	0,220	0,206	0,193	0,173
	Periodic thermal transmittance <sup>6)</sup>	W/m <sup>2</sup> K	Y <sub>IE</sub>	0,117	0,055	0,029	0,021	0,016	0,008
	Phase shift	h	S	9h 9'	12h 3'	14h 27'	15h 39'	16h 52'	19h 16'
Attenuation factor		f <sub>a</sub>	0,370	0,215	0,132	0,103	0,080	0,048	
Internal thermal capacity	kJ/m <sup>2</sup> K	C	18,90	17,82	17,33	17,22	17,15	17,14	
Specific heat	kJ/kgK	c	1,0						
Water vapour diffusion resistance factor		μ	5 (wet-cup) – 10 (dry-cup)						
Water vapour permeability	kg/msPa	δ <sub>a</sub>	32 x 10 <sup>-12</sup>						
Acoustics	Superficial mass with plaster and mortars <sup>7)</sup>	kg/m <sup>2</sup>	M <sub>s</sub>	117	138	156	164	173	191
	Weighted sound reduction index <sup>8)</sup>	dB	R <sub>w</sub>	45	47	49	49	50	51

#### Note:

1) In the direction orthogonal (⊥) to the face L x W that is in the vertical direction.

2) In the direction orthogonal (⊥) to the face L x H that is in the horizontal direction.

3) Masonry made with cement-based adhesive mortar Incollarsa type M5 thin-layer T in compliance with UNI EN 998-2. Horizontal and vertical joint with a thickness between 0,5 mm and 3 mm distributed over the entire horizontal and vertical face of the block.

4) Weight to be used for structural calculations (includes residual humidity in steady state).

5) Transmittance value determined without plaster, with inside surface resistance of 0,13 m<sup>2</sup>K/W and outside surface resistance equal to 0,04 m<sup>2</sup>K/W in compliance with UNI EN ISO 6946.

#### Warnings:

Protect the masonry from rain and frost during installation until the plaster is applied.

The Ekoru s.r.l. reserves the right to make technical changes of any kind without prior notice. This technical data sheet cancel and replace the previous review.

6) It is the index of thermal inertia, it is the product of the stationary transmittance by the attenuation factor. In Italy the limit is Y<sub>IE</sub> < 0,10 W/m<sup>2</sup>K.

7) Value referred to masonry with the addition of thk. 15 mm on each side of MULTICEM cementitious plaster with a mass of about 1.100 kg/m<sup>2</sup> in compliance with UNI EN 998-1.

8) Value calculated with mass laws suggested by the EAACA through the use of the formula R<sub>w</sub> = 32,6 log M<sub>s</sub> - 22,5 [dB] for walls of surface mass M<sub>s</sub> < 150 kg/m<sup>2</sup> and R<sub>w</sub> = 26,1 log M<sub>s</sub> - 8,4 [dB] for surface mass wall M<sub>s</sub> > 150 kg/m<sup>2</sup> (considered mass of note 7)).

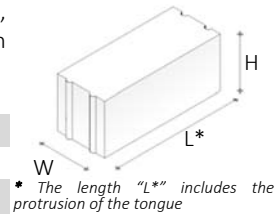
### ENERGY type TONGUE AND GROOVE

350 kg/m<sup>3</sup>  
0,080 W/mK



#### Description

Solid element for masonry in the shape of a rectangular cuboid, made by autoclaved aerated concrete (AAC), white coloured, with male/female vertical joints, industrially produced, suitable for the construction of both external and internal masonries, not load-bearing also in high-seismic areas, to be plastered.  
Element of Group 1 according to the EN 1996-1-1.



		W	L*	H
Manufacturing dimensions	mm	240/450	600	250
Tolerance category TLMA	mm	± 2	± 3	± 2

#### Technical data

Description		UdM	symbol						
Block width		mm	W	240	300	350	400	450	
Mechanical – physical characteristics block	Dry density	kg/m <sup>3</sup>		350 ± 50					
	Dry block's weight	kg	± 5%	12,40	15,50	18,05	20,65	23,25	
	Dimensional stability for humidity	mm/m	$\epsilon_{cs,ref} \leq$	0,06					
	Mean compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	$f_m >$	2,1 categ. I		2,3 categ. I			
	Characteristic compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	$f_{bk} \geq$	1,6 categ. I		1,7 categ. I			
	Characteristic compressive strength orthogonal <sup>2)</sup>	N/mm <sup>2</sup>	$\bar{f}_{bk} \geq$	1,8 categ. I					
	Normalized compressive strength	N/mm <sup>2</sup>	$f_b \geq$	2,6 categ. I					
Reaction to fire		Euroclass		A1					
Fire resistance				EI240					
Mechanical characteristics masonry <sup>3)</sup>	Mean density masonry <sup>4)</sup>	kg/m <sup>3</sup>	Gm	450 ± 50					
	Characteristic flexural strength adhesion	N/mm <sup>2</sup>	$f_{xk1}/f_{xk2}$						
	Mean compressive strength	N/mm <sup>2</sup>	$f_m$						
	Characteristic compressive strength	N/mm <sup>2</sup>	$f_k$						
	Mean initial shear strength	N/mm <sup>2</sup>	$f_{vm}$						
	Characteristic initial shear strength ( $\tau_0$ in N/cm <sup>2</sup> )	N/mm <sup>2</sup>	$f_{vk0}$						
	Poisson coefficient	N/mm <sup>2</sup>	$\nu$						
	Modulus of normal secant elasticity	N/mm <sup>2</sup>	E						
Shear modulus		N/mm <sup>2</sup>	G						
Thermo – hygrometric characteristics	Dry thermal conductivity Measured according to the standard EN 12667		W/mK	$\lambda_{10,dry}$	0,080				
	Stationary thermal transmittance <sup>5)</sup>		W/m <sup>2</sup> K	U	0,315	0,255	0,220	0,193	0,173
	Periodic thermal transmittance <sup>6)</sup>		W/m <sup>2</sup> K	$Y_{IE}$	0,117	0,055	0,029	0,016	0,008
	Phase shift		h	S	9h 9'	12h 3'	14h 27'	16h 52'	19h 16'
	Attenuation factor			$f_a$	0,370	0,215	0,132	0,080	0,048
	Internal thermal capacity		kJ/m <sup>2</sup> K	C	18,90	17,82	17,33	17,15	17,14
	Specific heat		kJ/kgK	c	1,0				
Water vapour diffusion resistance factor			$\mu$	5 (wet-cup) – 10 (dry-cup)					
Water vapour permeability		kg/msPa	$\delta_a$	32 x 10 <sup>-12</sup>					
Acoustic <sup>5)</sup>	Superficial mass with plaster and mortars <sup>7)</sup>		kg/m <sup>2</sup>	M <sub>s</sub>	117	138	156	173	191
	Weighted sound reduction index <sup>8)</sup>		dB	R <sub>w</sub>	45	47	49	50	51

#### Note:

- 1) In the direction orthogonal (⊥) to the face L x W that is in the vertical direction.
- 2) In the direction orthogonal (⊥) to the face L x H that is in the horizontal direction.
- 3) Masonry made with cement-based adhesive mortar Incollarasa type M5 thin-layer T in compliance with UNI EN 998-2. Horizontal and vertical joint with a thickness between 0,5 mm and 3 mm distributed over the entire horizontal and vertical face of the block.
- 4) Weight to be used for structural calculations (includes residual humidity in steady state).
- 5) Transmittance value determined without plaster, with inside surface resistance of 0,13 m<sup>2</sup>K/W and outside surface resistance equal to 0,04 m<sup>2</sup>K/W in compliance with UNI EN ISO 6946.

- 6) It is the index of thermal inertia, it is the product of the stationary transmittance by the attenuation factor. In Italy the limit is  $Y_{IE} < 0,10$  W/m<sup>2</sup>K.

- 7) Value referred to masonry with the addition of thk. 15 mm on each side of MULTICEM cementitious plaster with a mass of about 1.100 kg/m<sup>2</sup> in compliance with UNI EN 998-1.

- 8) Value calculated with mass laws suggested by the EAACA through the use of the formula  $R_w = 32,6 \log M_s - 22,5$  [dB] for walls of surface mass  $M_s < 150$  kg/m<sup>2</sup> and  $R_w = 26,1 \log M_s - 8,4$  [dB] for surface mass wall  $M_s > 150$  kg/m<sup>2</sup> (considered mass of note 7)).

#### Warnings:

Protect the masonry from rain and frost during installation until the plaster is applied.

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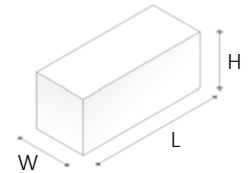
### SYSMIC type SMOOTH

580 kg/m<sup>3</sup>  
0,130 W/mK



#### Description

Solid element for masonry in the shape of a rectangular cuboid, made by autoclaved aerated concrete (AAC), white coloured, smooth, industrially produced, suitable for the construction of both external and internal masonries, load-bearing and non-load-bearing also in high-seismic areas, to be plastered.  
Element of Group 1 according to the EN 1996-1-1.



Dimensions		W	L	H
Manufacturing dimensions	mm	240/375	600	250
Tolerance category TLMA	mm	± 2	± 3	± 2

#### Technical data

Description	UdM	symbol				
<b>Block width</b>	<b>mm</b>	<b>W</b>	<b>240</b>	<b>300</b>	<b>350</b>	<b>375</b>
<b>Mechanical – physical characteristics block</b>						
Dry density	kg/m <sup>3</sup>		580 ± 50			
Dry block's weight	kg	± 5%	20,90	26,10	30,45	32,65
Dimensional stability for humidity	mm/m	$\epsilon_{cs,ref} \leq$	0,04			
Mean compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	$f_m >$	5,0 categ. I			
Characteristic compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	$f_{bk} \geq$	5,0 categ. I			
Characteristic compressive strength orthogonal <sup>2)</sup>	N/mm <sup>2</sup>	$\overline{f_{bk}} \geq$	5,0 categ. I			
Normalized compressive strength	N/mm <sup>2</sup>	$f_b \geq$	5,0 categ. I			
Reaction to fire	Euroclass		A1			
Fire resistance			EI 240 – REI 180	EI 240 – REI 240		
<b>Mechanical characteristics masonry <sup>3)</sup></b>						
Mean density masonry <sup>4)</sup>	kg/m <sup>3</sup>	Gm	700 ± 60			
Characteristic flexural strength adhesion	N/mm <sup>2</sup>	$f_{xk1}/f_{xk2}$	0,15/0,30			
Mean compressive strength	N/mm <sup>2</sup>	$f_m$	4,6			
Characteristic compressive strength	N/mm <sup>2</sup>	$f_k$	3,3			
Mean initial shear strength	N/mm <sup>2</sup>	$f_{vm}$	0,43			
Characteristic initial shear strength ( $\tau_0$ in N/cm <sup>2</sup> )	N/mm <sup>2</sup>	$f_{vk0}$	0,30			
Poisson coefficient	N/mm <sup>2</sup>	$\nu$	1			
Modulus of normal secant elasticity	N/mm <sup>2</sup>	E	4574			
<b>Thermo – hygrometric characteristics</b>						
Dry thermal conductivity Measured according to the standard EN 12667	W/mK	$\lambda_{10,dry}$	0,130			
Stationary thermal transmittance <sup>5)</sup>	W/m <sup>2</sup> K	U	0,496	0,404	0,349	0,327
Periodic thermal transmittance <sup>6)</sup>	W/m <sup>2</sup> K	$Y_{IE}$	0,167	0,078	0,041	0,030
Phase shift	h	S	9h 35'	12h 30'	14h 56'	16h 9'
Attenuation factor		$f_a$	0,337	0,193	0,118	0,091
Internal thermal capacity	kJ/m <sup>2</sup> K	C	28,47	26,89	26,20	26,04
Specific heat	kJ/kgK	c	1,0			
Water vapour diffusion resistance factor		$\mu$	5 (wet-cup) – 10 (dry-cup)			
Water vapour permeability	kg/msPa	$\delta_a$	32 x 10-12			
<b>Acoustics</b>						
Superficial mass with plaster and mortars <sup>7)</sup>	kg/m <sup>2</sup>	$M_s$	172	207	236	250
Weighted sound reduction index <sup>8)</sup>	dB	$R_w$	50	52	54	54

**Note:**

1) In the direction orthogonal (⊥) to the face L x W that is in the vertical direction.

2) In the direction orthogonal (⊥) to the face L x H that is in the horizontal direction.

3) Masonry made with cement-based adhesive mortar Incollarsa type M5 thin-layer T in compliance with UNI EN 998-2. Horizontal and vertical joint with a thickness between 0,5 mm and 3 mm distributed over the entire horizontal and vertical face of the block.

4) Weight to be used for structural calculations (includes residual humidity in steady state).

5) Transmittance value determined without plaster, with inside surface resistance of 0,13 m<sup>2</sup>K/W and outside surface resistance equal to 0,04 m<sup>2</sup>K/W in compliance with UNI EN ISO 6946.

**Warnings:**

Protect the masonry from rain and frost during installation until the plaster is applied.

The Ekoru s.r.l. reserves the right to make technical changes of any kind without prior notice. This technical data sheet cancel and replace the previous review.

6) It is the index of thermal inertia, it is the product of the stationary transmittance by the attenuation factor. In Italy the limit is  $Y_{IE} < 0,10$  W/m<sup>2</sup>K.

7) Value referred to masonry with the addition of thk. 15 mm on each side of MULTICEM cementitious plaster with a mass of about 1.100 kg/m<sup>2</sup> in compliance with UNI EN 998-1.

8) Value calculated with mass laws suggested by the EAACA through the use of the formula  $R_w = 32,6 \log M_s - 22,5$  [dB] for walls of surface mass  $M_s < 150$  kg/m<sup>2</sup> and  $R_w = 26,1 \log M_s - 8,4$  [dB] for surface mass wall  $M_s > 150$  kg/m<sup>2</sup> (considered mass of note 7)).



### SYSMIC IDRO type SMOOTH

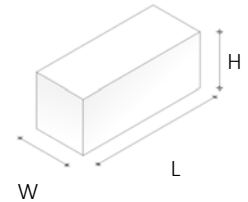
580 kg/m<sup>3</sup>  
0,130 W/mK



#### Description

Solid element for masonry in the shape of a rectangular cuboid, made by autoclaved aerated concrete (AAC), white coloured, smooth, hydrophobic in bulk, industrially produced, suitable for the construction of both external and internal masonries, load-bearing and non-load-bearing also in high-seismic areas, to be plastered.

Element of Group 1 according to the EN 1996-1-1.



		W	L	H
Manufacturing dimensions	mm	240/400	600	250
Tolerance category TLMA	mm	± 2	± 3	± 2

#### Technical data

Description		UdM	symbol					
<b>Block width</b>		<b>mm</b>	<b>W</b>	<b>240</b>	<b>300</b>	<b>350</b>	<b>375</b>	<b>400</b>
Mechanical – physical characteristics block	Dry density	kg/m <sup>3</sup>		580 ± 50				
	Dry block's weight	kg	± 5%	20,90	26,10	30,45	32,65	34,80
	Dimensional stability for humidity	mm/m	ε <sub>cs,ref</sub> ≤	0,04				
	Mean compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>m</sub> >	5,0 categ. I				
	Characteristic compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	5,0 categ. I				
	Characteristic compressive strength orthogonal <sup>2)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	5,0 categ. I				
	Normalized compressive strength	N/mm <sup>2</sup>	f <sub>b</sub> ≥	5,0 categ. I				
Reaction to fire		Euroclass		A1				
Fire resistance				El 240 – REI 180	El 240 – REI 240			
Mechanical characteristics masonry <sup>3)</sup>	Mean density masonry <sup>4)</sup>	kg/m <sup>3</sup>	Gm	700 ± 60				
	Characteristic flexural strength adhesion	N/mm <sup>2</sup>	f <sub>xk1</sub> /f <sub>xk2</sub>	0,15/0,30				
	Mean compressive strength	N/mm <sup>2</sup>	f <sub>m</sub>	4,6				
	Characteristic compressive strength	N/mm <sup>2</sup>	f <sub>k</sub>	3,3				
	Mean initial shear strength	N/mm <sup>2</sup>	f <sub>vm</sub>	0,43				
	Characteristic initial shear strength (τ <sub>0</sub> in N/cm <sup>2</sup> )	N/mm <sup>2</sup>	f <sub>vk0</sub>	0,30				
	Poisson coefficient	N/mm <sup>2</sup>	ν	1				
	Modulus of normal secant elasticity	N/mm <sup>2</sup>	E	4574				
Shear modulus	N/mm <sup>2</sup>	G	1830					
Thermo – hygrometric characteristics	Dry thermal conductivity Measured according to the standard EN 12667	W/mK	λ <sub>10,dry</sub>	0,130				
	Stationary thermal transmittance <sup>5)</sup>	W/m <sup>2</sup> K	U	0,496	0,404	0,349	0,327	0,308
	Periodic thermal transmittance <sup>6)</sup>	W/m <sup>2</sup> K	Y <sub>I,E</sub>	0,167	0,078	0,041	0,030	0,022
	Phase shift	h	S	9h 35'	12h 30'	14h 56'	16h 9'	17h 22'
	Attenuation factor		f <sub>a</sub>	0,337	0,193	0,118	0,091	0,071
	Internal thermal capacity	kJ/m <sup>2</sup> K	C	28,47	26,89	26,20	26,04	25,96
	Specific heat	kJ/kgK	c	1,0				
Water vapour diffusion resistance factor		μ	5 (wet-cup) – 10 (dry-cup)					
Water vapour permeability	kg/msPa	δ <sub>a</sub>	32 x 10 <sup>-12</sup>					
Acoustics	Superficial mass with plaster and mortars <sup>7)</sup>	kg/m <sup>2</sup>	M <sub>s</sub>	172	207	236	250	265
	Weighted sound reduction index <sup>8)</sup>	dB	R <sub>w</sub>	50	52	54	54	55

**Note:**

- <sup>1)</sup> In the direction orthogonal (⊥) to the face L x W that is in the vertical direction.
- <sup>2)</sup> In the direction orthogonal (⊥) to the face L x H that is in the horizontal direction.
- <sup>3)</sup> Masonry made with cement-based adhesive mortar Incollarasa type M5 thin-layer T in compliance with UNI EN 998-2. Horizontal and vertical joint with a thickness between 0,5 mm and 3 mm distributed over the entire horizontal and vertical face of the block.
- <sup>4)</sup> Weight to be used for structural calculations (includes residual humidity in steady state).
- <sup>5)</sup> Transmittance value determined without plaster, with inside surface resistance of 0,13 m<sup>2</sup>K/W and outside surface resistance equal to 0,04 m<sup>2</sup>K/W in compliance with UNI EN ISO 6946.

- <sup>6)</sup> It is the index of thermal inertia, it is the product of the stationary transmittance by the attenuation factor. In Italy the limit is Y<sub>I,E</sub> < 0,10 W/m<sup>2</sup>K.

- <sup>7)</sup> Value referred to masonry with the addition of thk. 15 mm on each side of MULTICEM cementitious plaster with a mass of about 1.100 kg/m<sup>3</sup> in compliance with UNI EN 998-1.

- <sup>8)</sup> Value calculated with mass laws suggested by the EAACA through the use of the formula R<sub>w</sub> = 32,6 log M<sub>s</sub> - 22,5 [dB] for walls of surface mass M<sub>s</sub> < 150 kg/m<sup>2</sup> and R<sub>w</sub> = 26,1 log M<sub>s</sub> - 8,4 [dB] for surface mass wall M<sub>s</sub> > 150 kg/m<sup>2</sup> (considered mass of note 7)).

**Warnings:**

Protect the masonry from rain and frost during installation until the plaster is applied.

### SYSMIC IDRO type SMOOTH

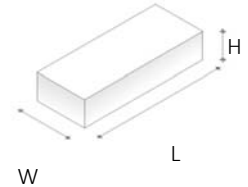
580 kg/m<sup>3</sup>  
0,130 W/mK



#### Description

Solid element for masonry in the shape of a rectangular cuboid, made by autoclaved aerated concrete (AAC), white coloured, smooth, hydrophobic in bulk, industrially produced, suitable for the construction of both external and internal masonries, load-bearing and non-load-bearing also in high-seismic areas, to be plastered.

Element of Group 1 according to the EN 1996-1-1.



		W	L	H
Manufacturing dimensions	mm	240/400	600	125
Tolerance category TLMA	mm	± 2	± 3	± 2

#### Technical data

Description		UdM	symbol					
<b>Block width</b>		<b>mm</b>	<b>W</b>	<b>240</b>	<b>300</b>	<b>350</b>	<b>375</b>	<b>400</b>
Mechanical – physical characteristics block	Dry density	kg/m <sup>3</sup>		580 ± 50				
	Dry block's weight	kg	± 5%	10,45	13,05	15,25	16,30	17,40
	Dimensional stability for humidity	mm/m	ε <sub>cs,ref</sub> ≤	0,04				
	Mean compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>m</sub> >	5,0 categ. I				
	Characteristic compressive strength <sup>1)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	5,0 categ. I				
	Characteristic compressive strength orthogonal <sup>2)</sup>	N/mm <sup>2</sup>	f <sub>bk</sub> ≥	5,0 categ. I				
	Normalized compressive strength	N/mm <sup>2</sup>	f <sub>b</sub> ≥	5,0 categ. I				
Reaction to fire		Euroclass		A1				
Fire resistance				El 240 – REI 180	El 240 – REI 240			
Mechanical characteristics masonry <sup>3)</sup>	Mean density masonry <sup>4)</sup>	kg/m <sup>3</sup>	G <sub>m</sub>	700 ± 60				
	Characteristic flexural strength adhesion	N/mm <sup>2</sup>	f <sub>xk1</sub> /f <sub>xk2</sub>	0,15/0,30				
	Mean compressive strength	N/mm <sup>2</sup>	f <sub>m</sub>	4,6				
	Characteristic compressive strength	N/mm <sup>2</sup>	f <sub>k</sub>	3,3				
	Mean initial shear strength	N/mm <sup>2</sup>	f <sub>vm</sub>	0,43				
	Characteristic initial shear strength (τ <sub>0</sub> in N/cm <sup>2</sup> )	N/mm <sup>2</sup>	f <sub>vk0</sub>	0,30				
	Poisson coefficient	N/mm <sup>2</sup>	ν	1				
	Modulus of normal secant elasticity	N/mm <sup>2</sup>	E	4574				
Shear modulus	N/mm <sup>2</sup>	G	1830					
Thermo – hygrometric characteristics	Dry thermal conductivity Measured according to the standard EN 12667	W/mK	λ <sub>10,dry</sub>	0,130				
	Stationary thermal transmittance <sup>5)</sup>	W/m <sup>2</sup> K	U	0,496	0,404	0,349	0,327	0,308
	Periodic thermal transmittance <sup>6)</sup>	W/m <sup>2</sup> K	Y <sub>IE</sub>	0,167	0,078	0,041	0,030	0,022
	Phase shift	h	S	9h 35'	12h 30'	14h 56'	16h 9'	17h 22'
	Attenuation factor		f <sub>a</sub>	0,337	0,193	0,118	0,091	0,071
	Internal thermal capacity	kJ/m <sup>2</sup> K	C	28,47	26,89	26,20	26,04	25,96
	Specific heat	kJ/kgK	c	1,0				
Water vapour diffusion resistance factor		μ	5 (wet-cup) – 10 (dry-cup)					
Water vapour permeability	kg/msPa	δ <sub>a</sub>	32 x 10 <sup>-12</sup>					
Acoustics	Superficial mass with plaster and mortars <sup>7)</sup>	kg/m <sup>2</sup>	M <sub>s</sub>	172	207	236	250	265
	Weighted sound reduction index <sup>8)</sup>	dB	R <sub>w</sub>	50	52	54	54	55

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- <sup>7)</sup> Value referred to masonry with the addition of thk. 15 mm on each side of MULTICEM cementitious plaster with a mass of about 1.100 kg/m<sup>3</sup> in compliance with UNI EN 998-1.

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**Warnings:**

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