BUILDING BLANKET

Sound Insulation | Fire Safety | Thermal Insulation

Glass wool building blanket is manufactured in three different types as 300, 350 and 400. It is used on the slabs of non utilized attics, between the rafters of utilized attics, for horizontal applications where no load is applied, for metal and sandwich roofs.

Application

Building blankets are rolled out on the slab when they are used for the insulation of non utilized attics. Since glass wool building blanket is lightweight, it is easy to take it up to the roof and to cut to be applied. Owing to the characteristics of glass wool, it doesn't get ripped during application. If can be applied easily with no waste pieces and each piece can be utilized. It can be adjusted to any type of roof. In order to reduce the condensation risk in winter and to discharge the overheated air in the attic, upper part of the insulation should be kept ventilated. The rolls should not be covered over by nylon or similar type of covers. Aluminium foil faced building blankets should be rolled on in the manner that the foiled face will be on the heated side.

	Thickness (cm)	Width x Length (cm)	Package (m^2)
Building Blanket 300	8	120 x 750	9,00
	10	120 x 600	7,20
	12	120 x 600	7,20
	14	120 x 600	7,20
	16	120 x 500	6,00
	18	120 x 500	6,00
	20	120 x 500	6,00

	Thickness (cm)	Width x Length (cm)	Package (m^2)
Building Blanket 350	8	120 x 1000	12,00
	10	120 x 800	9,60
	12	120 x 600	7,20
	14	120 x 600	7,20
	16	120 x 500	6,00
	18	120 x 500	6,00
	20	120 x 500	6,00

	Thickness (cm)	Width x Length (cm)	Package (m^2)
Building Blanket 400	10	120 x 800	9,60
	12	120 x 600	7,20
	14	120 x 600	7,20

- *Thermal insulation*
- *Fire safety*
- *Sound insulation*
- *Easy to install*
- *Available in different sizes*
- *Lightweight*

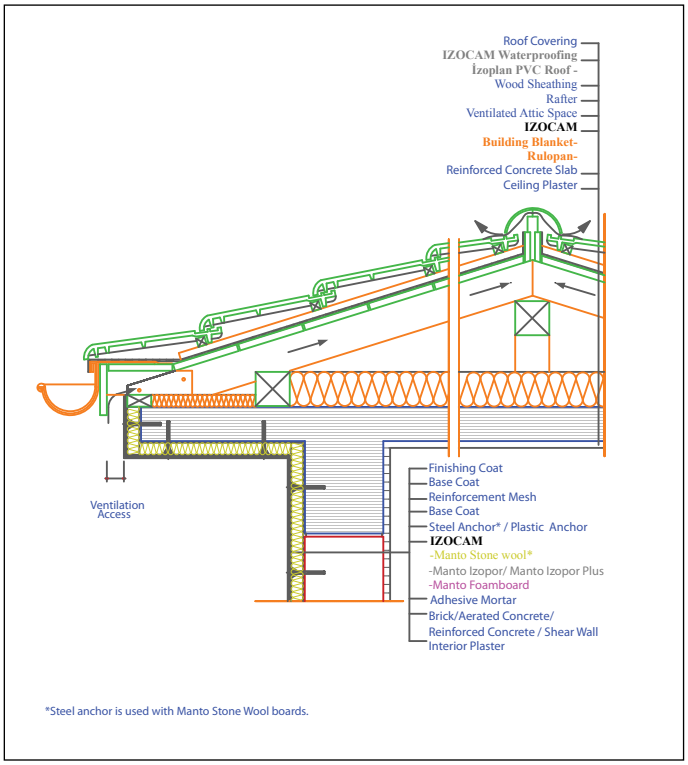
IZOCAM®

TECHNICAL DATA SHEET

İzocam Building Blanket

Properties	Symbol	Unit	Description							Tolerance	Standard
Material Type	-	-	400 *		350		300				
Material	-	-	Glass Wool							-	TS EN 13162
Density	ρ	kg/m³	11		14		18			+/-10%	-
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,043		0,040		0,035			-	TS EN 12667 TS EN 12939
Width	W	mm	1200							+/-1,5%	TS EN 822
Length	L	mm	5000 - 10000							+/-2%	TS EN 822
Facing	-	-	Unfaced				Al-foil			-	-
Reaction to fire	-	-	A1				C-s1,d0			-	TS EN 13501-1
Thickness	t	mm	80	100	120	140	160	180	200	-5 or -5 % **	TS EN 823
Thermal Resistance 400	R_D	m².K/W	-	2,30	2,75	3,25	-	-	-	-	TS EN 13162
Thermal Resistance 350	R_D	m².K/W	2,00	2,50	3,00	3,50	4,00	4,50	5,00	-	TS EN 13162
Thermal Resistance 300	R_D	m².K/W	2,25	2,85	3,40	4,00	4,55	5,10	5,70	-	TS EN 13162
Specific Heat ***	c	kJ/(kg.K)	0,84							-	EN 12524
Water Vapor Diffusion Resistance Coefficient ****	μ	-	1							-	TS EN 12086
Dynamic Elasticity ***	Edyn	kN/m²	0,8							-	DIN 52214
Packaging Material	-	-	PE Film							-	-
Other Information	Maximum service temperature on the side faced with aluminium foil is 90 °C.										

* 80 mm thickness blanket for type 400, is not available.
** The biggest value is chosen at minus tolerance.
*** Literature value.
**** Declaration of licensor for equivalent products of İzocam.



Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be put on top of each other with extra care.
- Only backshutter of the truck body should be opened during unloading.
- Unloading should be carried out from backside to the front.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be put into upright position during shipping and storing.
- Storing should be carried out by using pallets. But they should not superposed with pallets.
- Products should not be pulled by their package.
- Products should not be stepped on and should not be used as steps.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.

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RULOPAN

Sound Insulation | Fire Safety | Thermal Insulation

İzocam Rulopan is a glass wool blanket manufactured with yellow glass tissue facing on both sides. It is used on the slabs of non utilized attics, between the rafters of utilized attics, for horizontal applications where no load is present.

Application

İzocam Rulopan is easy to hold and to be rolled out since it is faced with glass tissue on both sides. Due to its lightweight property, it is quite easy to carry it up to the roof and to cut to be installed. It can be applied easily with no waste pieces and each piece can be utilized. Since it is elastic it can fill the gaps thoroughly. In order to reduce the condensation risk in winter and to discharge the overheated air in the attic, upper part of the insulation should be kept ventilated. No weight should be placed on the material after the application and it should not be walked on. The blankets should not be covered over by nylon or similar type of covers.

Thickness (cm)	Width x Length (cm)	Package (m^2)
8	120 x 800	9,60
10	120 x 600	7,20
12	120 x 500	6,00
14	120 x 500	6,00

- *Thermal insulation*
- *Fire safety*
- *Sound insulation*
- *Easy to install*
- *Available in different sizes*
- *Lightweight*

İZOCAM®

TECHNICAL DATA SHEET

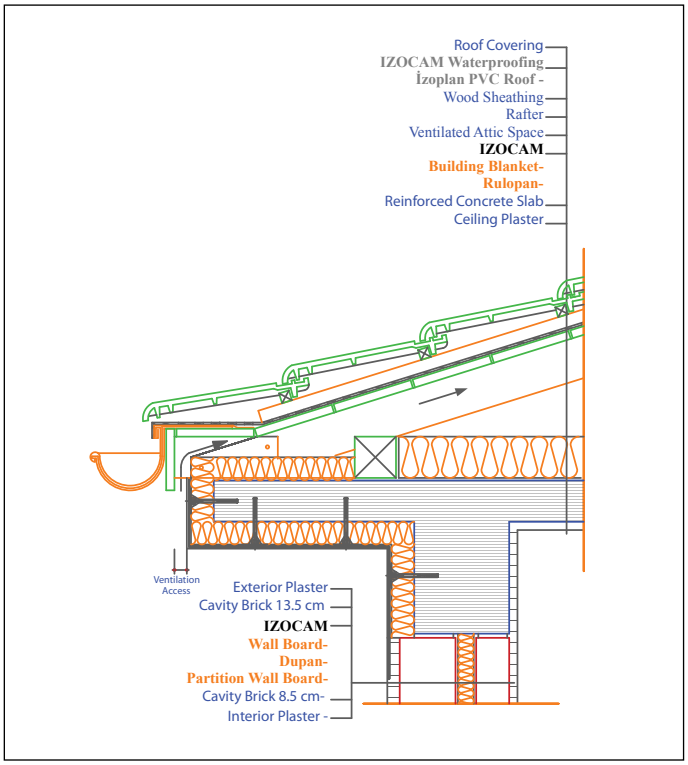
İzocam Rulopan

Properties	Symbol	Unit	Description				Tolerance	Standard
Material	-	-	Glass Wool				-	TS EN 13162
Density	ρ	kg/m³	15				+/-10%	-
Width	W	mm	(2x) 600				+/-1,5%	TS EN 822
Length	L	mm	8000	6000	5000		+/-2%	TS EN 822
Thickness	t	mm	80	100	120	140	-5 or -5 % **	TS EN 823
Facing	-	-	Yellow glass tissue				-	-
Reaction to fire	-	-	A1				-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,040				-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	2,00	2,50	3,00	3,50	-	-
Specific Heat *	c	kJ/(kg.K)	0,84				-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8				-	DIN 52214
Packaging Material	-	-	PE Film				-	-

* Literature value.
** The biggest value is chosen at minus tolerance.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be put on top of each other with extra care.
- Only backshutter of the truck body should be opened during unloading.
- Unloading should be carried out from backside to the front.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be put into upright position during shipping and storing.
- Storing should be carried out by using pallets. But the products should not be superposed with pallets.
- Products should not be pulled by their package.
- Products should not be stepped on and should not be used as steps.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.



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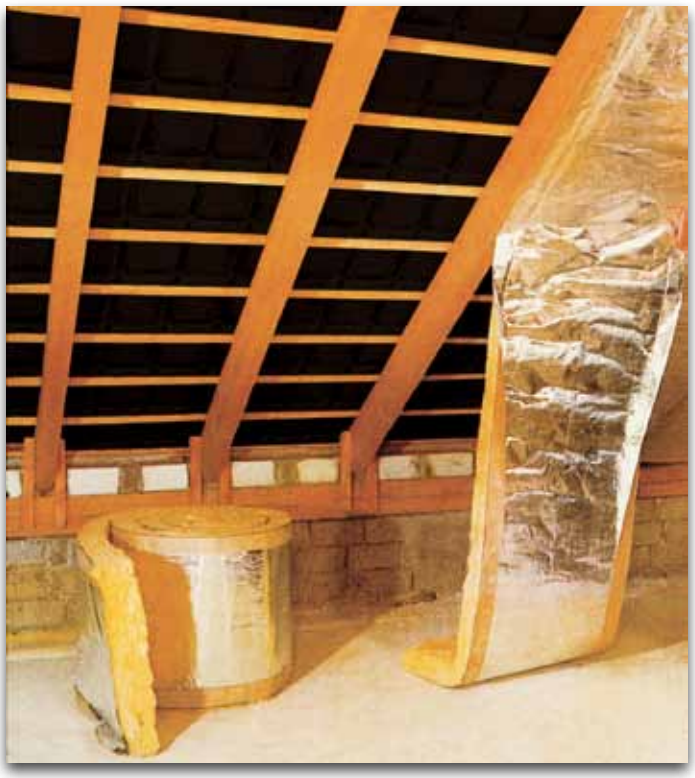
RAFTER BLANKETS

İzocam Rafter Blankets are glass wool blankets with aluminium foil facing on one side. There are 5 cm laps of aluminium foil at the edge. They are used between the rafters of utilized attics, in other words the attics which are being heated and cooled.

Application

The blankets are put between the rafters in the attics. It is placed so that the foiled side faces interior space. Since the width of the blankets is 50 cm it complies with the wood roofs that was built in standard sizes perfectly without any damages between the rafters. Then, by the help of 5 cm laps on both side, it is fixed by punching or nailing to the rafter fascia. Since it already has foil, there is no need to use vapour barrier. No weight should be placed on the material after the application and it should not be walked on.

Thickness (cm)	Width x Length (cm)	Package (m^2)
8	2 x (50 x 1000)	10,00
10	2 x (50 x 800)	8,00
12	2 x (50 x 600)	6,00
14	2 x (50 x 500)	5,00



- *Thermal insulation*
- *Fire safety*
- *Sound insulation*
- *Easy to install*
- *Available in different sizes*
- *Lightweight*

TECHNICAL DATA SHEET

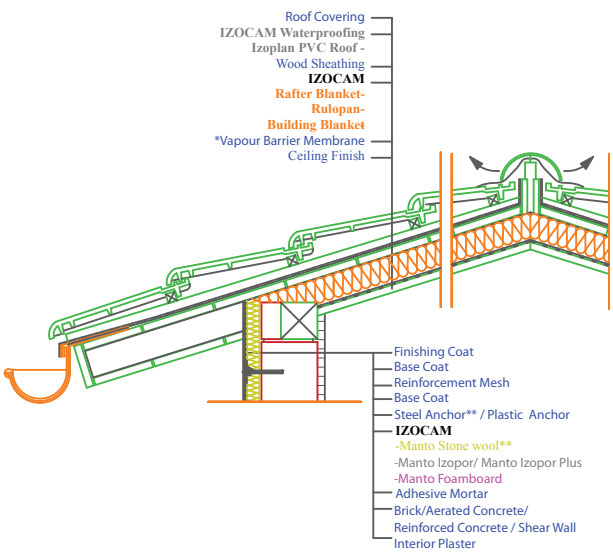
İzocam Rafter Blanket

Properties	Symbol	Unit	Description				Tolerance	Standard
Material	-	-	Glass Wool				-	TS EN 13162
Density	ρ	kg/m³	16				+/-10%	-
Width	W	mm	(2x) 500				+/-1,5%	TS EN 822
Length	L	mm	10000	8000	6000	5000	+/-2%	TS EN 822
Thickness	t	mm	80	100	120	140	-5 or -5 % **	TS EN 823
Facing	-	-	Al-foil				-	-
Reaction to fire	-	-	C-s1, d0				-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,040				-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	2,00	2,50	3,00	3,50	-	-
Specific Heat *	c	kJ/(kg.K)	0,84				-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8				-	DIN 52214
Packaging Material	-	-	PE Film				-	-
Other Information	Maximum service temperature on the side faced with aluminium foil is 90 °C.							

* Literature value.
** The biggest value is chosen at minus tolerance.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be put on top of each other with extra care.
- Only backshutter of the truck body should be opened during unloading.
- Unloading should be carried out from backside to the front.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be put into upright position during shipping and storing.
- Storing should be carried out by using pallets. But the products should not be superposed with pallets.
- Products should not be pulled by their package.
- Products should not be stepped on and should not be used as steps.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.



*No vapour barrier membrane is needed when aluminium foil is used at the parts facing hot surface
**Steel anchor is used with Manto Stone Wool boards.

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ZERO GLOBAL WARMING POTENTIAL
ZERO OZONE DEPLETION POTENTIAL

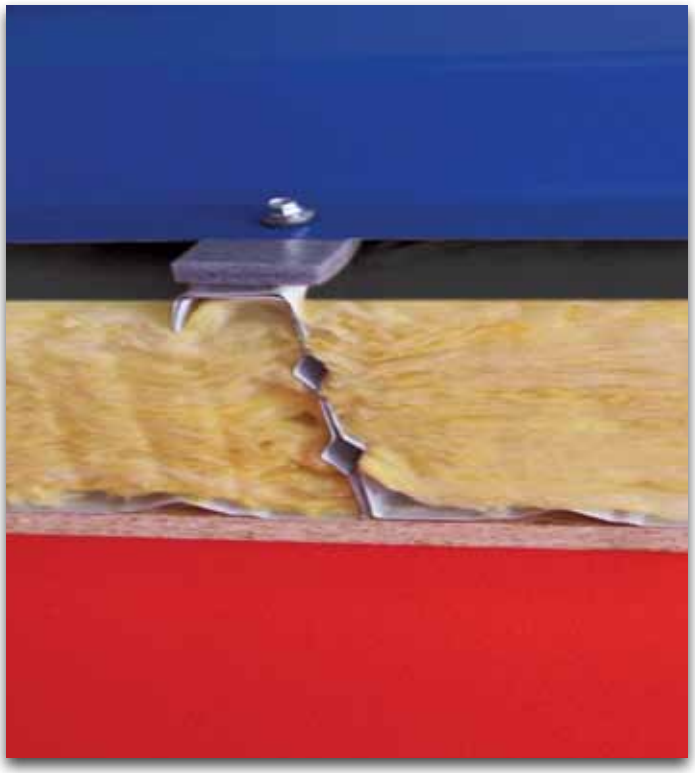
INDUSTRIAL BUILDING BOARD

Industrial Building Board is a glass wool board faced with black glass tissue on one side. It is utilized for thermal insulation, sound insulation and fire safety in the roof cladding of industrial buildings.

Application

One layer of nylon cover is laid on corrugated metal roofing sheet as a vapour barrier. It is overlapped at the seams by 10 cm. and adhered to the surface. On top of vapour barrier layer, Industrial Building Board is placed. The application is completed by metal cladding. Applying acoustic band in front of the spacers is recommended in order to prevent sound and thermal bridges where metal pieces come in contact to each other.

Thickness (cm)	Width x Length (cm)	Package (m^2)
50	600 x 1200	8,64
80	600 x 1200	5,76
100	600 x 1200	4,32



- *High thermal insulation*
- *Fire safety*
- *Sound insulation*
- *Easy to apply*
- *Lightweight*

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TECHNICAL DATA SHEET

İzocam Industrial Building Board

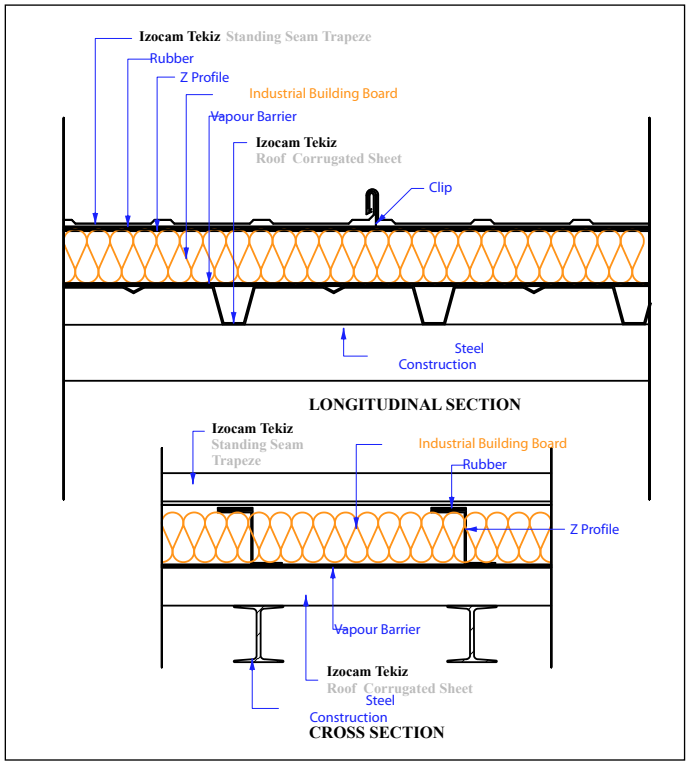
Properties	Symbol	Unit	Description			Tolerance	Standard
Material	-	-	Glass Wool			-	TS EN 13162
Density	ρ	kg/m³	20			+/-10%	-
Width	W	mm	600			+/-1,5%	TS EN 822
Length	L	mm	1200			+/-2%	TS EN 822
Thickness	t	mm	50	80	100	-3 or -3 %, +10 or 10 % **	TS EN 823
Facing	-	-	Black glass tissue			-	-
Reaction to fire	-	-	A1			-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,035			-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	1,40	2,25	2,85	-	TS EN 13162
Short Term Water Absorption	WS	kg/m²	< 1			-	TS EN 1609
Specific Heat *	c	kJ/(kg.K)	0,84			-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8			-	DIN 52214
Packaging Material	-	-	PE Film + PE Sleeve			-	-
Other Information	Maximum service temperature on the side faced with glass tissue is 200 °C.						

* Literature value.

** The biggest value is chosen at minus tolerance, the smallest value is chosen at plus tolerance.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors if the weather is rainy.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Products should be in packages (10 each) and maximum 6 packages can be superposed.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.



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CEPHEPAN

Sound Insulation · Fire Safety · Thermal Insulation

İzocam Cephepan is a water repellent glass wool board manufactured with silicone spread and faced with yellow or black glass tissue. It is utilized at curtain wall systems, under the glass, granite, marble and aluminium wall cladding for thermal insulation, sound insulation and fire safety purposes.

Application

The boards can be placed in between the structural profiles fastened to the concrete surface by anchor members or they can also be installed to the facade wall by means of pins. For prefabricated systems first, the boards are placed in to the panels with the facade cladding on, at the plant and then they are installed to the concrete surfaces as ready-to-use elements at the construction site. For curtain wall systems, since the air duct formed between the cladding material and the structural system acts as a chimney in case of fire, it is extremely important in terms of fire safety to choose the insulation material that belongs to Class A “noncombustible materials.”

Thickness (cm)	Width x Length (cm)	Package (m^2)
3	60 x 120	10,08
4	60 x 120	7,20
5	60 x 120	5,76
6	60 x 120	5,04
8	60 x 120	3,60
10	60 x 120	2,88

Sound absorbtion coefficient by frequency “αsabine”

Frequency (Hz.)	125	250	500	1000	2000	4000
10 cm	0,60	1,00	1,00	1,00	1,00	1,00

- *High thermal insulation*
- *Fire safety*
- *High sound insulation*
- *Easy to apply*
- *Available in different sizes*
- *Lightweight*

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TECHNICAL DATA SHEET

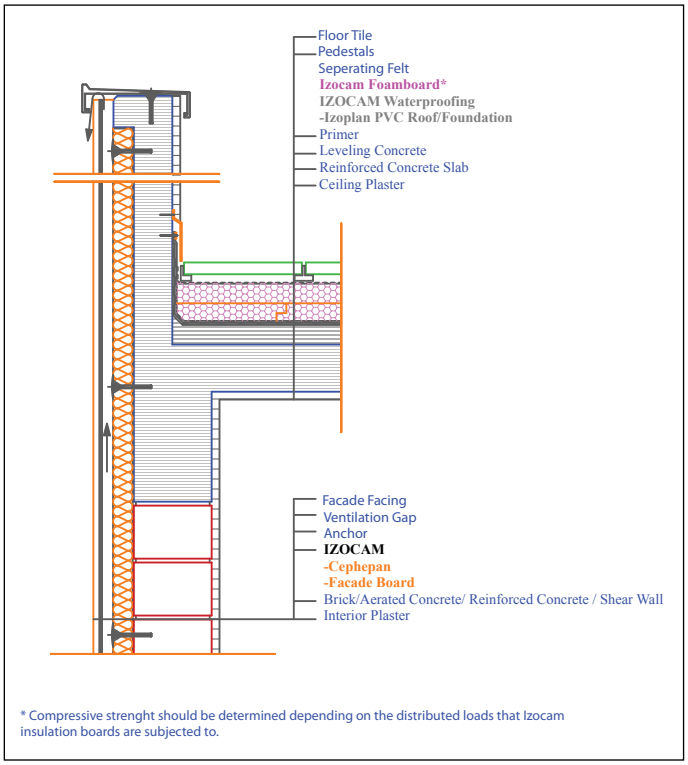
İzocam Cephepan

Properties	Symbol	Unit	Description						Tolerance	Standard
Material	-	-	Glass Wool						-	TS EN 13162
Density	ρ	kg/m³	40						+/-10%	-
Width	W	mm	600						+/-1,5%	TS EN 822
Length	L	mm	1200						+/-2%	TS EN 822
Thickness	t	mm	30	40	50	60	80	100	-3 or -3 %, +10 or 10 % **	TS EN 823
Facing	-	-	Yellow glass tissue						-	-
Reaction to fire	-	-	A1						-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,033						-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	0,90	1,20	1,50	1,80	2,25	3,00	-	TS EN 13162
Short Term Water Absorption	WS	kg/m²	< 1						-	TS EN 1609
Specific Heat *	c	kJ/(kg.K)	0,84						-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8						-	DIN 52214
Packaging Material	-	-	PE Bag						-	-
Other Information	Maximum service temperature on the side faced with glass tissue is 200 °C.									

* Literature value.
** The biggest value is chosen at minus tolerance, the smallest value is chosen at plus tolerance.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- The products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Products should be in packages (10 each) and maximum 6 packages can be superposed.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.



* Compressive strenght should be determined depending on the distributed loads that Izocam insulation boards are subjected to.

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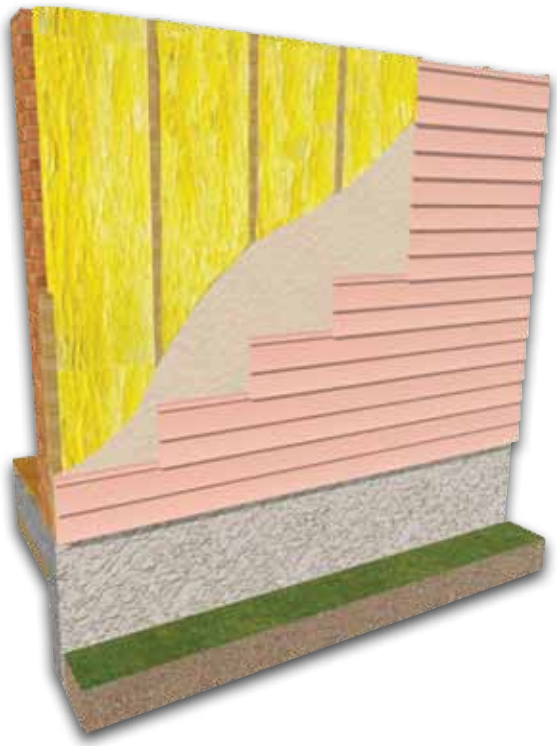
YALI GLASS WOOL

Yali Glass Wool is an unfaced glass wool board. It is utilized at siding systems over basement wall level for thermal insulation, sound insulation and fire safety.

Application

The boards are placed in between the plastic profiles and wood lathes which form the structure of the siding system. If all the components of the system are assembled in a correct manner, no load (lathe, siding profiles, wind, etc.) is imposed on Yali glass wool materials. For that reason, there might not be any need to connect the boards with anchors. Accordingly, the structural skeleton of the siding is being formed as slightly narrower than the board width so that glass wool boards can be fastened through squeezing. Since glass wool boards feature 100% dimensional stability, no change is observed over the time. For that reason, they continue to serve the purpose of thermal insulation, sound insulation and fire safety during building life cycle. However, if there is any risk that the distance between lathe and/or profiles which form the structure might not remain constant, then they can be fastened with anchor.

Thickness (cm)	Width x Length (cm)	Package (m^2)
3	40 x 120	7,68
4	40 x 120	5,76
5	40 x 120	4,80



- *High thermal insulation*
- *Fire safety*
- *High sound insulation*
- *Easy to apply*
- *Lightweight*

IZOCAM

TECHNICAL DATA SHEET

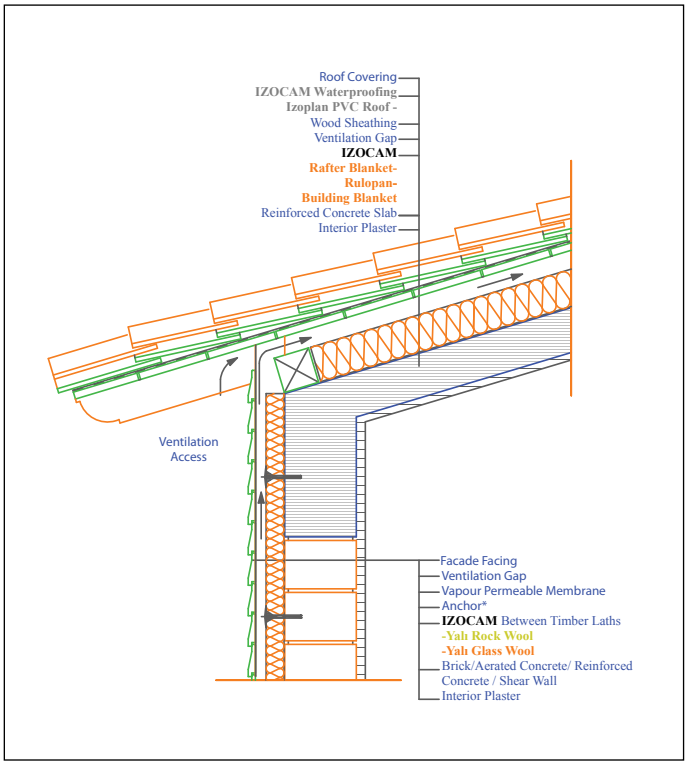
İzocam Yali Glass Wool

Properties	Symbol	Unit	Description			Tolerance	Standard
Material	-	-	Glass Wool			-	TS EN 13162
Density	ρ	kg/m³	50			+/-10%	-
Width	W	mm	400			+/-1,5%	TS EN 822
Length	L	mm	1200			+/-2%	TS EN 822
Thickness	t	mm	30	40	50	-3 or -3 %, +10 or 10 % **	TS EN 823
Facing	-	-	Unfaced			-	-
Reaction to fire	-	-	A1			-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,031			-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	0,95	1,25	1,60	-	TS EN 13162
Specific Heat *	c	kJ/(kg.K)	0,84			-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8			-	DIN 52214
Water Vapor Diffusion Resistance Coefficient ***	μ	-	1			-	TS EN 12086
Packaging Material	-	-	PE Bag			-	-

* Literature value.
** The biggest value is chosen at minus tolerance, the smallest value is chosen at plus tolerance.
*** Declaration of licensor for equivalent products of İzocam.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Products should be in packages (10 each) and maximum 6 packages can be superposed.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.



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WALL BOARD

Wall board is a glass wool board which has water repellent properties owing to the fact that it contains silicone. It is used in between two walls, at double layer sandwich wall panels for fire safe thermal and sound insulation purposes.

Application

Wall Board is applied loose in between two wall components such as bricks, AAC blocks, concrete blocks at the facades. In this application, known as sandwich wall insulation, two wall components should be connected to each other with special fasteners at certain intervals. Owing to their water repellent properties, the boards do not allow any water leakage which might occur as a result of any damage on the facade cladding of the building. By this way, they remain dry and keep their insulation properties. Additionally, even in the case of condensation they allow insulation properties to be maintained by throwing the condensed water out quickly.

Thickness (cm)	Width x Length (cm)	Package (m^2)
3	60 x 120	14,40
4	60 x 120	10,80
5	60 x 120	8,64
6	60 x 120	7,20
7,5	60 x 120	5,76
10	60 x 120	4,32

- *High thermal insulation*
- *Fire safety*
- *Sound insulation*
- *Easy to apply*
- *Lightweight*

İZOCAM

TECHNICAL DATA SHEET

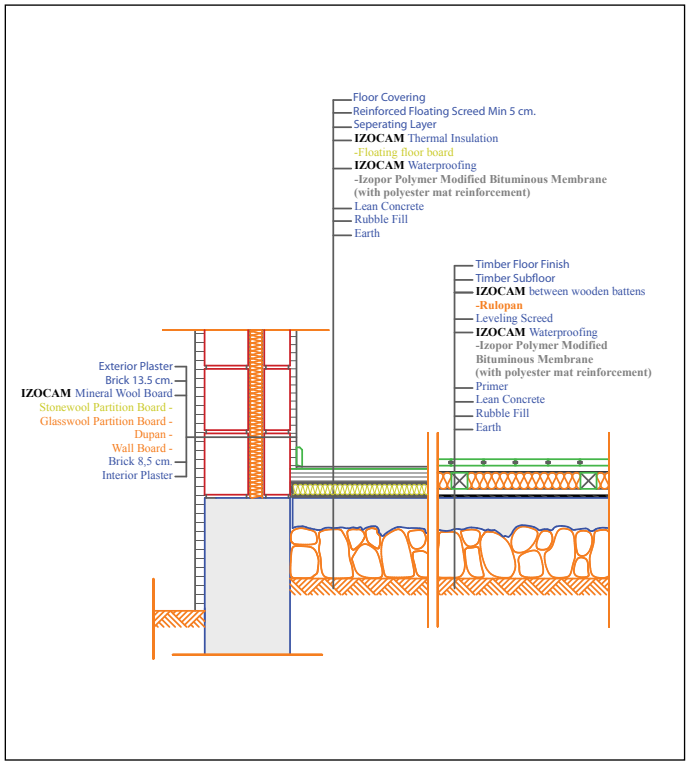
İzocam Wall Board

Properties	Symbol	Unit	Description						Tolerance	Standard
Material	-	-	Glass Wool						-	TS EN 13162
Density	ρ	kg/m³	22						+/-10%	-
Width	W	mm	600						+/-1,5%	TS EN 822
Length	L	mm	1200						+/-2%	TS EN 822
Thickness	t	mm	30	40	50	60	75	100	-3 or -3 %, +10 or 10 % **	TS EN 823
Facing	-	-	Unfaced						-	-
Reaction to fire	-	-	A1						-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,035						-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	0,85	1,10	1,40	1,70	2,10	2,85	-	-
Short Term Water Absorption	WS	kg/m²	< 1						-	TS EN 1609
Specific Heat *	c	kJ/(kg.K)	0,84						-	EN 12524
Water Vapor Diffusion Resistance Coefficient ***	μ	-	1						-	TS EN 12086
Dynamic Elasticity *	Edyn	kN/m²	0,8						-	DIN 52214
Packaging Material	-	-	PE Film + PE Sleeve						-	-
Other Information	Aluminium foil coated boards can be manufactured if required. In this case water repellency feature is not generated. Maximum service temperature on the aluminium foil faced side is 90 °C.									

* Literature value.
** The biggest value is chosen at minus tolerance, the smallest value is chosen at plus tolerance.
*** Declaration of licensor for equivalent products of İzocam.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Products should be in packages (10 each) and maximum 6 packages can be superposed.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.



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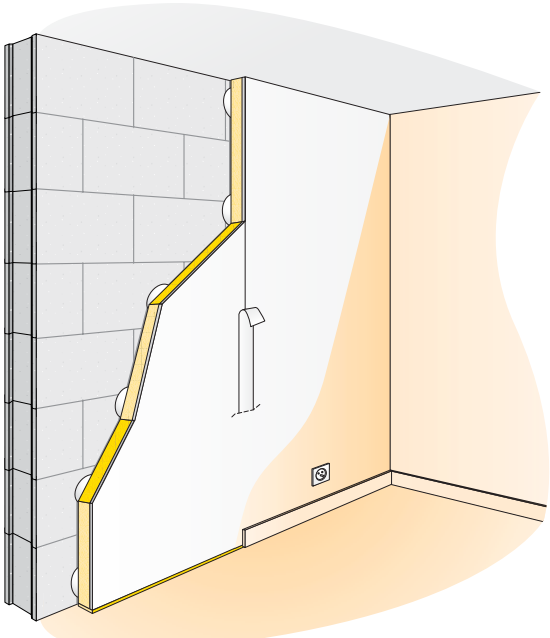
KALIBEL GLASS WOOL

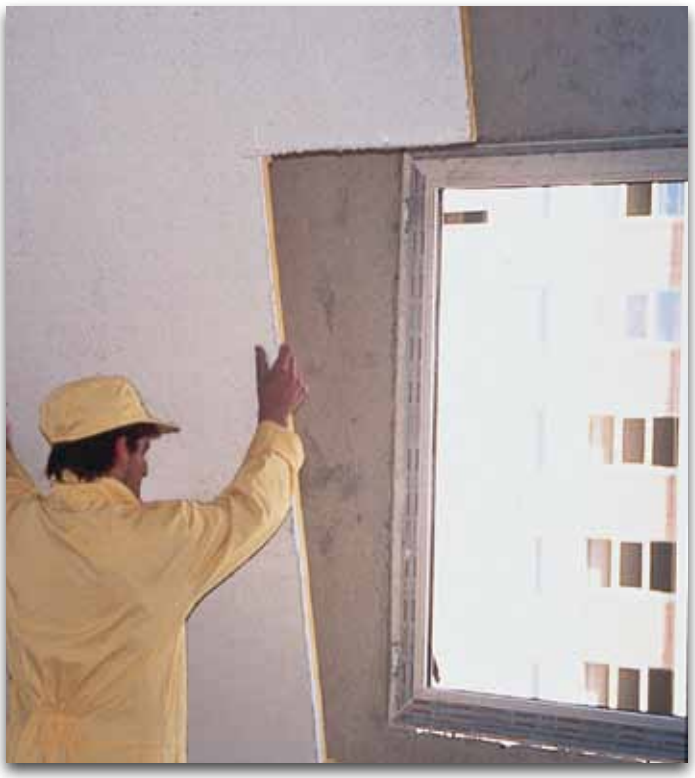
Kalibel is a composite product with gypsum board facing one one side and aluminium foil in between. It is used on the inner surfaces of exterior walls, adjacent walls, internal walls of the buildings, periphery walls of staircases and elevator shafts and as internal wall lining timber framed buildings for fire safe thermal and sound insulation purposes.

Application

Wall surface to be insulated is cleaned and prepared for the application. Boards are cut according to the wall size so that there is 1 cm. gap off the floor and 0.5 cm off the ceiling is left. Special gypsum fixing mortar is put on the glass wool side of the board, so that 3-5 kg (8-9 chunks) per square meter is applied. Kalibel boards are placed on to the wedges of 10 mm which were put in beforehand. After the boards are leaned against the wall, a rubber hammer and a floating rule are used for levelling. The boards are supported until the adhesive sets. The joints are filled with a special net and paste. The application is completed with top coat paint. Since the walls with Kalibel application work with mass-spring-mass principle, they offer better sound insulation and do not impose load on the building than the one layered and heavy walls which only work with mass principle. Aluminium foil between glass wool board and gypsum board prevents the risk of condensation.

Thickness (cm)		Width x Length (cm)	Package (m^2)
Glass Wool	Gypsum Board		
3	1,25	120 x 270	6.48
5	1,25	120 x 270	6.48





- *High thermal insulation*
- *Fire safety*
- *High sound insulation – 56 dB*
- *Easy to apply*
- *Lightweight*

TECHNICAL DATA SHEET

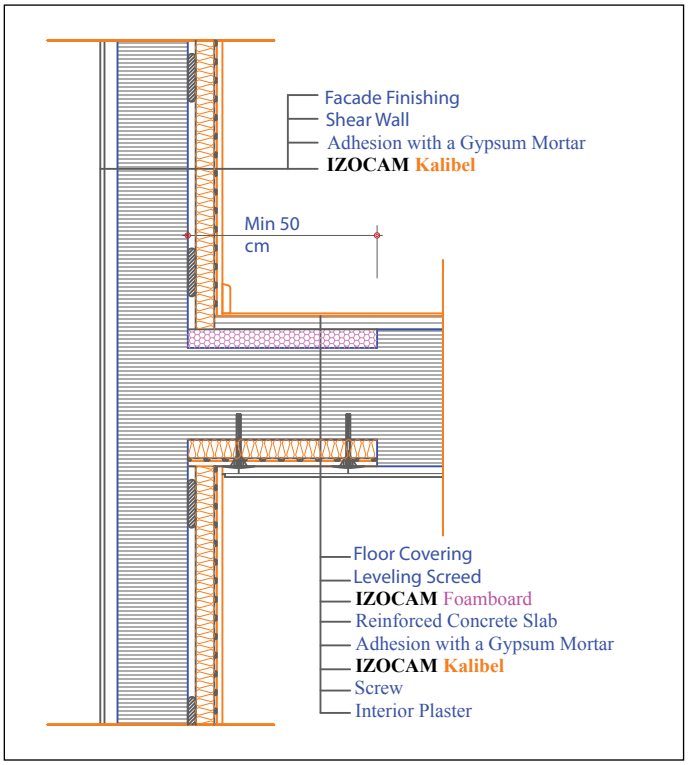
İzocam Kalibel Glass Wool

Properties	Symbol	Unit	Description		Tolerance	Standard
Material	-	-	Glass Wool		-	-
Density	ρ	kg/m³	75		+/-10%	-
Width	W	mm	1200		+/-1,5%	TS EN 822
Length	L	mm	2700		+/-2%	TS EN 822
Thickness	t	mm	30	50	-3 or -3 %, +10 or 10 % **	TS EN 823
Facing	-	-	Gypsum Board		-	-
Reaction to fire	-	-	A2-s1,d0		-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,031		-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	0,95	1,60	-	-
Specific Heat *	c	kJ/(kg.K)	0,84		-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8		-	DIN 52214
Water Vapor Diffusion Resistance Coefficient ***	μ	-	1 (Unfaced Glass Wool)		-	DIN 52615 TS EN 12086
Packaging Material	-	-	PE Film		-	-
Other Information	Kalibel is a composite board, formed with glass wool board, aluminium foil and gypsum board.					

* Literature value.
** The biggest value is chosen at minus tolerance, the smallest value is chosen at plus tolerance.
*** Declaration of licensor for equivalent products of İzocam.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- The products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should be stored on the pallets. Damaged or defective pallets should not be used.
- Products should not be stepped on and should not be used as steps.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- Storage area should be flat and non-slippery.
- Loading and unloading should be done by forklift or overhead crane.
- The boards should be carried to the application site one at a time by two people with extra care.



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ISOVER SAINT-GOBAIN manufactured under licence.

ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

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OPTIMUM WALL

Optimum wall is a special glass wool blanket faced with kraft paper on one side. It is used for thermal and sound insulation of exterior walls, inner face of all type of reinforced concrete components, interior and adjacent walls, periphery walls of staircases and elevator shafts and as internal wall lining timber framed buildings. For installation it has a system with its special profiles, fastening equipments and accessories.

Application

U profile is fastened to the wall with an anchor at every 45 cm. The distance to be left should be 1 cm longer than the insulation material thickness. The same process is repeated for the floor if the walls are not vertical. If the wall is lower than 270 cm, a C profile is fastened to the center of the wall at every 60 cm by anchoring. C profile is fastened to the wall at every 135 cm if the wall is higher than 270 cm. Fastening rods are placed into the wall at 60 cm intervals horizontally. After Optimum blanket is installed into the fastening rods, adjusting nut is secured fastening rods. C profiles are placed into the the adjusting nut threads vertically in a manner that C profiles are inserted into the U profiles which were installed at the celing and the floor. All wall surface is adjusted with plumb line by the help of fastening rods. Then the wall surface becomes ready for the gypsum board application.
Despite the fact that Optimum Wall is in blanket form, it can also rise to an upright position like a board owing to its special fibre structure.

Thickness (cm)	Width x Length (cm)	Package (m^2)
5	120 x 1350	16,2
8	120 x 540	6,48

Floor and ceiling studs

	U Profile	C Profile
Material	Galvanized Sheet	
Width (cm)	2	4,6
Length (cm)	235	300
Thickness (mm)	0,5	0,6
Package type (item)	12	

Intermediate support (spacebar/horizontal stud)

Material	Galvanized Steel
Length (cm)	7,5 - 10
Package type (item)	25

Accessory for windows

Material	Galvanized Sheet
Width (cm)	4,8
Length (cm)	10,8
Thickness (mm)	1
Depth (cm)	1,7
Package type (item)	9

- *Fire safety*
- *High sound insulation – 56 dB*
- *Easy to apply*
- *High thermal insulation*
- *Available in different sizes*
- *Lightweight*

TECHNICAL DATA SHEET

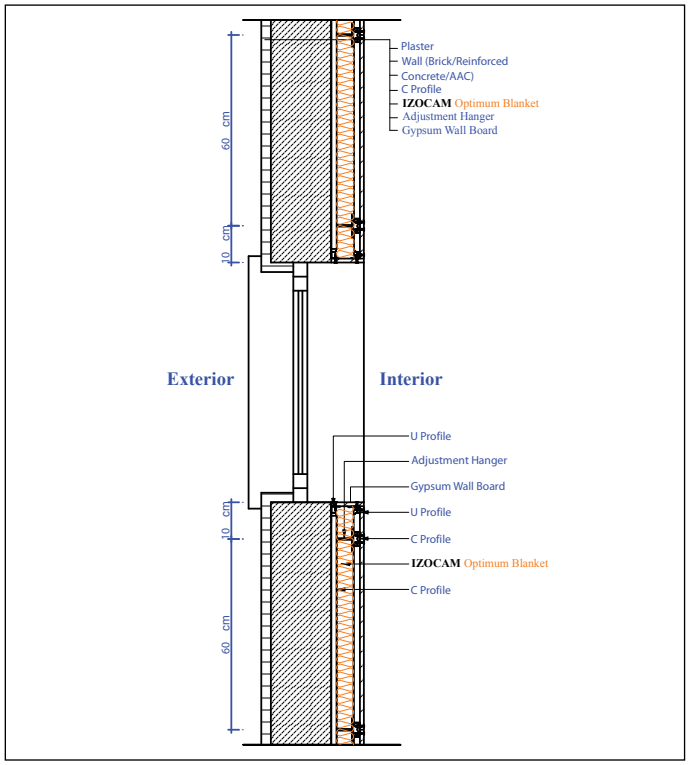
İzocam Optimum Wall

Properties	Symbol	Unit	Description		Tolerance	Standard
Material	-	-	Glass Wool		-	TS EN 13162
Density	ρ	kg/m³	15	22	+/-10%	-
Width	W	mm	1200		+/-1,5%	TS EN 822
Length	L	mm	5400	13500	+/-2%	TS EN 822
Thickness	t	mm	80	50	-5 or -5 % **	TS EN 823
Facing	-	-	Kraft Paper		-	-
Reaction to fire	-	-	C-s1, d0		-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,040	0,035	-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	2,00	1,40	-	TS EN 13162
Specific Heat *	c	kJ/(kg.K)	0,84		-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8		-	DIN 52214
Packaging Material	-	-	PE Film		-	-
Other Information	Maximum service temperature on the side faced with kraft paper is 90 °C.					

* Literature value.
** The biggest value is chosen at minus tolerance, the smallest value is chosen at plus tolerance.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Products should be in packages (10 each) and maximum 6 packages can be superposed.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.



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manufactured under licence.

ZERO GLOBAL WARMING POTENTIAL
ZERO OZONE DEPLETION POTENTIAL

DUPAN

İzocam Dupan is a glass wool board manufactured with silicone spread and faced with yellow glass tissue on both sides. It is utilized at exterior walls in between two wall components, at double layer lightweight partition walls for fire safe thermal insulation, sound insulation or acoustic purposes.

Application

When they are used at exterior walls in between two wall components, the boards are cut to size and applied loose between two wall components such as brick, AAC blocks, concrete blocks. For the applications of thermal and sound insulation at lightweight partitions walls, after the boards are placed into the structural construction made of aluminium profiles, gypsum boards are fastened on both sides by the help of profiles. Before cladding with gypsum board rubber tapes (İzocamtape) should be applied to the construction in order to avoid sound bridges.

Thickness (cm)	Width x Length (cm)	Package (m^2)
3	60 x 270	19,44
4	60 x 270	16,20
5	60 x 270	12,96
6	60 x 270	9,72
7,5	60 x 270	8,10
10	60 x 270	6,48

Sound absorbtion coefficient by frequency "αsabine"

Frequency (Hz.)	125	250	500	1000	2000	4000
10 cm	0,45	1,00	1,00	0,95	0,95	0,90

- *High sound insulation*
- *Fire safety*
- *High thermal insulation*
- *Acoustic arrangement*
- *Easy to apply*
- *Available in different sizes*
- *Lightweight*

TECHNICAL DATA SHEET

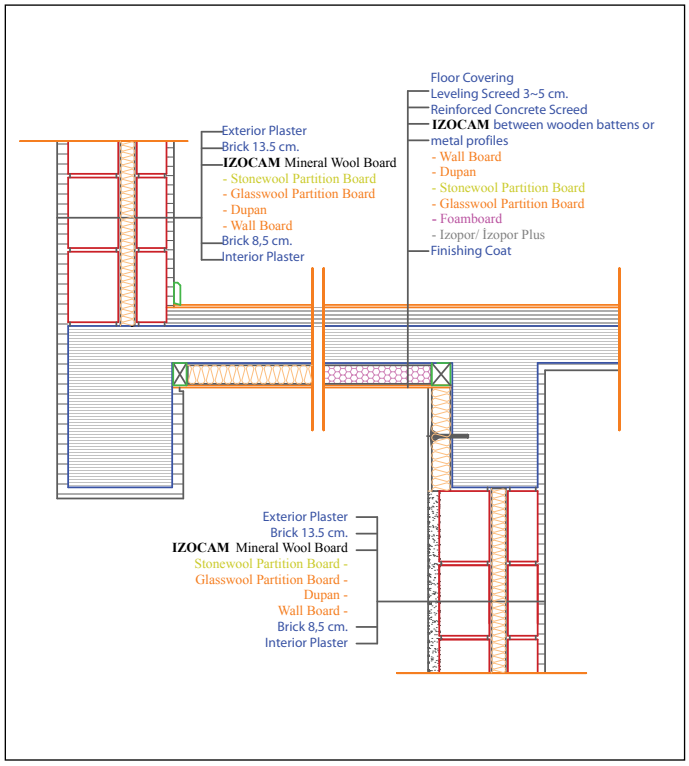
İzocam Dupan

Properties	Symbol	Unit	Description						Tolerance	Standard
Material	-	-	Glass Wool						-	TS EN 13162
Density	ρ	kg/m³	28						+/-10%	-
Width	W	mm	600						+/-1,5%	TS EN 822
Length	L	mm	2700						+/-2%	TS EN 822
Thickness	t	mm	30	40	50	60	75	100	-3 or -3 %, +10 or 10 % **	TS EN 823
Facing	-	-	Yellow Glass Tissue (Double Side)						-	-
Reaction to fire	-	-	A1						-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,033						-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	0,90	1,20	1,50	1,80	2,25	3,00	-	-
Short Term Water Absorption	WS	kg/m²	< 1						-	TS EN 1609
Specific Heat *	c	kJ/(kg.K)	0,84						-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8						-	DIN 52214
Packaging Material	-	-	PE Bag						-	-

* Literature value.
** The biggest value is chosen at minus tolerance.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Products should be in packages (10 each) and maximum 6 packages can be superposed.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.



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ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

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GLASS WOOL PARTITION WALL BOARD

Sound Insulation · Fire Safety · Thermal Insulation

It is a glass wool board faced with yellow glass tissue on one side. It is used for thermal and sound insulation of lightweight partition walls, stairwells and elevator shafts, adjacent walls, inner surfaces of exterior walls.

Application

Timber or metal construction is built first at where the application will take place. İzocam Glass Wool Partition Wall is placed into the construction. Depending on the application space, gypsum boards are fastened on the side facing the interior or on both sides. Before cladding with gypsum board, it is recommended to apply rubber tapes (İzocamtape) to the construction in order to avoid sound bridges.

Thickness (cm)	Width x Length (cm)	Package (m^2)
5	60 x 135	9,72
7,5	60 x 135	5,67
10	60 x 135	4,86

- *High sound insulation*
- *Fire safety*
- *High thermal insulation*
- *Easy to apply*
- *Lightweight*

İZOCAM®

TECHNICAL DATA SHEET

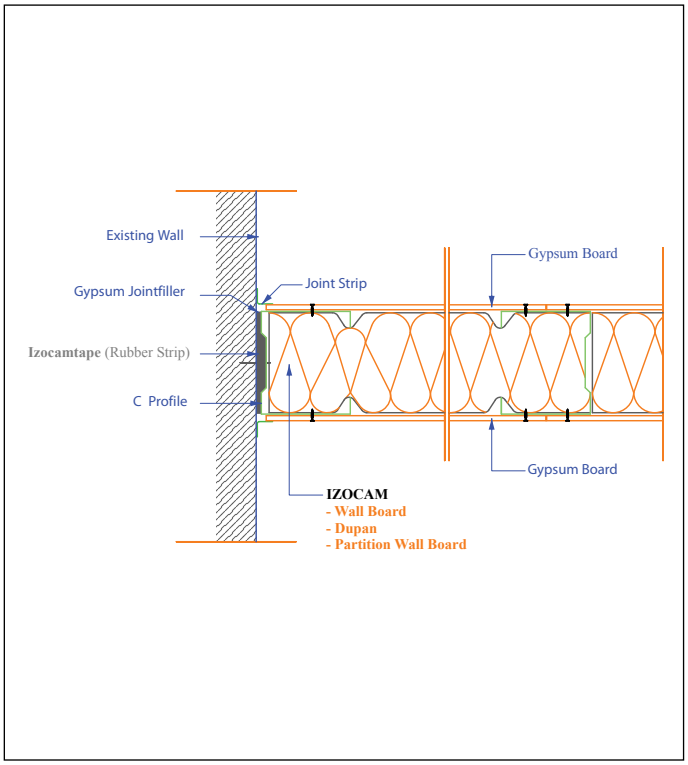
İzocam Glass Wool Partition Wall Board

Properties	Symbol	Unit	Description			Tolerance	Standard
Material	-	-	Glass Wool			-	TS EN 13162
Density	ρ	kg/m³	20			+/-10%	-
Width	W	mm	600			+/-1,5%	TS EN 822
Length	L	mm	1350			+/-2%	TS EN 822
Thickness	t	mm	50	75	100	-3 or -3 %, +10 or 10 % **	TS EN 823
Facing	-	-	Yellow Glass Tissue			-	-
Reaction to fire	-	-	A1			-	EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,035			-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	1,40	2,10	2,85	-	-
Short Term Water Absorption	WS	kg/m²	< 1			-	TS EN 1609
Specific Heat *	c	kJ/(kg.K)	0,84			-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8			-	DIN 52214
Packaging Material	-	-	PE Film			-	-
Other Information	Maximum service temperature on the side faced with glass tissue is 200 °C.						

* Literature value.
** The biggest value is chosen at minus tolerance, the smallest value is chosen at plus tolerance.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Products should be in packages (10 each) and maximum 6 packages can be superposed.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.



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OPTIMUM PARTITION WALL

It is a special glass wool blanket faced with glass tissue on both sides. It is used for thermal and sound insulation of lightweight partition walls. For installation it has a system with its special profies, fastening equipments and accessories.

Application

U profile is fastened to the floor and to the ceiling with an anchor at every 45 cm with a distance which is 1 cm wider than the insulation material thickness. If the walls are not vertical, plumb line is drawn from the ceiling to the floor and the line that U profile will be fastened is marked. C profiles are installed in U profiles back to back and partition wall frame is formed. C profiles should be at every 60 cm. Gypsum board is put on one face and Optimum Blankets which have been cut 1 cm longer than the profile height are placed between the profiles. It is recommended to apply rubber tapes (İzocamtape) to the construction in order to reduce vibration. After installing gypsum board, the application is completed. Despite the fact that Optimum Partition Wall is in blanket form, it can also rise to an upright position owing to its special fibre structure.

Thickness (cm)	Width x Length (cm)	Package (m^2)
5	120 x 2000	24

Floor and ceiling studs

	U Profile	C Profile
Material	Galvanized Sheet	
Width (cm)	2	4,6
Length (cm)	235	300
Thickness (mm)	0,5	
Package type (item)	12	

- *Thermal insulation*
- *Fire safety*
- *Sound insulation*
- *Easy to apply*
- *Lightweight*

TECHNICAL DATA SHEET

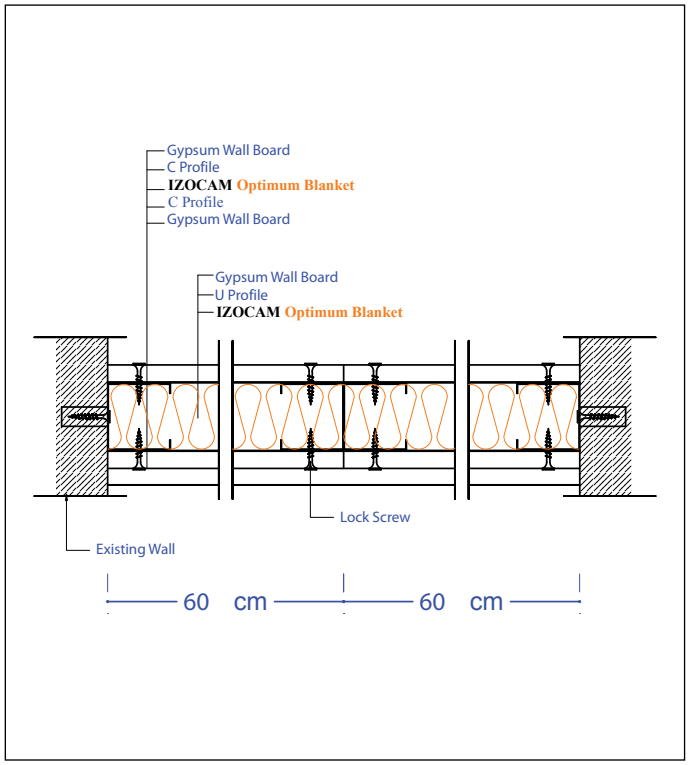
İzocam Optimum Partition Wall

Properties	Symbol	Unit	Description	Tolerance	Standard
Material	-	-	Glass Wool	-	TS EN 13162
Density	ρ	kg/m^3	12	+/-10%	-
Width	W	mm	1200	+/-1,5%	TS EN 822
Length	L	mm	20000	+/-2%	TS EN 822
Thickness	t	mm	50	-5 or -5 % **	TS EN 823
Facing	-	-	Glass Tissue	-	-
Reaction to fire	-	-	A1	-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,043	-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m^2.K/W	1,15	-	TS EN 13162
Specific Heat *	c	kJ/(kg.K)	0,84	-	EN 12524
Dynamic Elasticity *	Edyn	kN/m^2	0,8	-	DIN 52214
Packaging Material	-	-	PE Film	-	-
Other Information	Maximum service temperature on the side faced with glass tissue is 200 °C.				

* Literature value.
** The biggest value is chosen at minus tolerance, the smallest value is chosen at plus tolerance.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Products should be in packages (10 each) and maximum 6 packages can be superposed.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.



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COMFORT

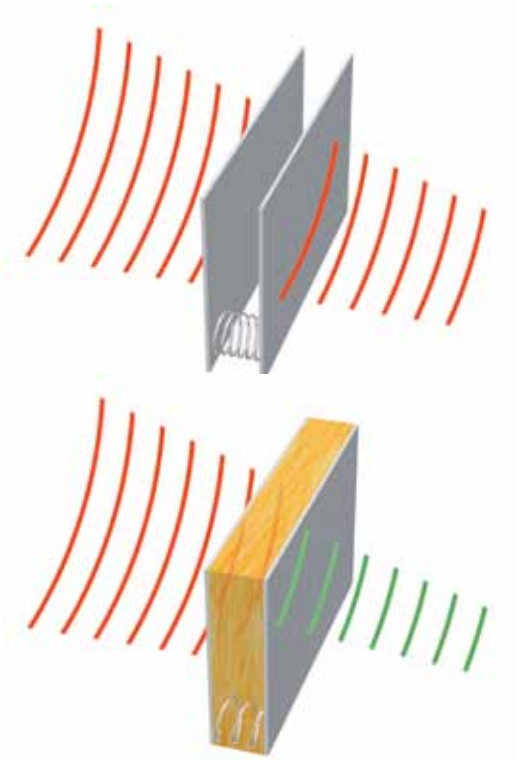
Sound Insulation | Fire Safety | Thermal Insulation

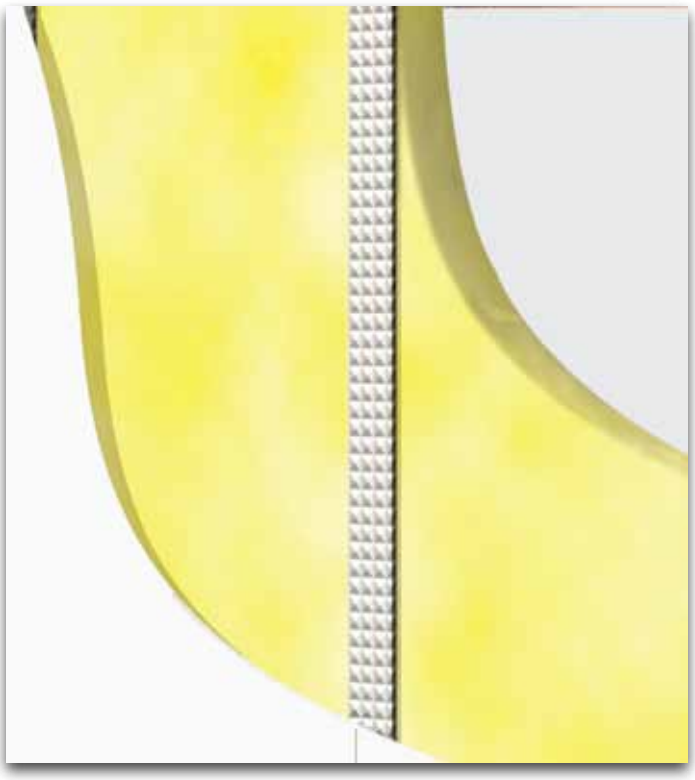
It is a glass wool blanket faced with nonwoven textile on both sides. Owing to its excellent facing, it is used for thermal and sound insulation, as well as fire safety of lightweight partition walls. Owing to its perfect facing it offers ease of application.

Application

Timber or metal construction is built first at where the application will take place. İzocam Glass Wool Comfort is placed into the construction. Depending on the application space, gypsum boards are fastened on the side facing the interior or on both sides. Before cladding with gypsum board, it is recommended to apply rubber tapes (İzocamtape) to the construction in order to avoid sound bridges.

Thickness (cm)	Width x Length (cm)	Package (m^2)
5	(2x60) x 1080	12,96
7,5	(2x60) x 810	9,72
10	(2x60) x 540	6,48





- *Thermal insulation*
- *Fire safety*
- *High sound insulation*
- *Easy to apply*
- *Lightweight*

İZOCAM

TECHNICAL DATA SHEET

İzocam Comfort

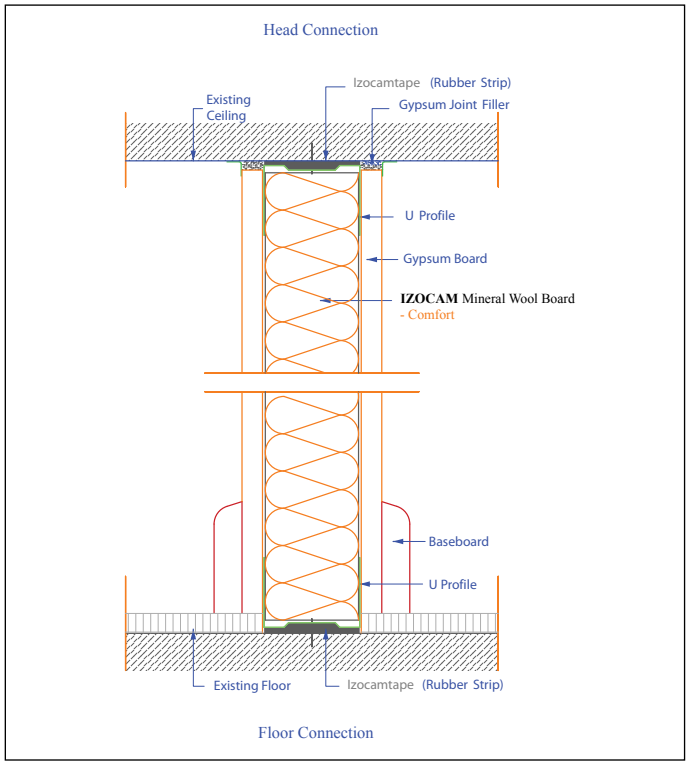
Properties	Symbol	Unit	Description			Tolerance	Standard
Material	-	-	Glass Wool			-	TS EN 13162
Density	ρ	kg/m³	16			+/-10%	-
Width	W	mm	1200 (600x2)			+/-1,5%	TS EN 822
Length	L	mm	10800	8100	5400	+/-2%	TS EN 822
Thickness	t	mm	50	75	100	-5 or -5 % **	TS EN 823
Facing	-	-	Both sides are faced with nonwoven textile			-	-
Reaction to fire	-	-	A1			-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,040			-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	1,25	1,85	2,50	-	-
Specific Heat *	c	kJ/(kg.K)	0,84			-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8			-	DIN 52214
Packaging Material	-	-	PE Film			-	-

* Literature value.

** The biggest value is chosen at minus tolerance, the smallest value is chosen at plus tolerance.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.



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ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

OPTIMUM CEILING

İzocam Optimum Ceiling is an insulation system composed of glass wool blanket, special profiles that enable the installation and window accessories. Glass wool blanket is faced with kraft paper on one side and takes the form of a board when it is rolled out. The system is used for the thermal and sound insulation of the ceilings.

Application

Anchores are placed every 50 cm along the axis where C profiles to be applied then space bars are installed into the anchors. Optimum Ceiling Blankets are cut by appropriate size and placed into the space bars. Adjusting nuts are installed into the space bars to fix the glass wool. Consequently, C profiles placed into the adjusting nut. Then gypsum boards are installed to the C profiles and the application is completed.

Thickness (cm)	Width x Length (cm)	Package (m^2)
5	120 x 1350	16,2
8	120 x 540	6,48

Ceiling studs

	U Profile	C Profile
Material	Galvanized Sheet	
Width (cm)	2	4,6
Length (cm)	235	300
Thickness (mm)	0,5	0,6
Package type (item)	12	

Intermediate support (spacebar/horizontal stud)

Material	Galvanized Steel
Length (cm)	7,5 - 10
Package type (item)	25

- *High thermal insulation*
- *Fire safety*
- *High sound insulation – 56 dB*
- *Easy to apply*
- *Lightweight*

TECHNICAL DATA SHEET

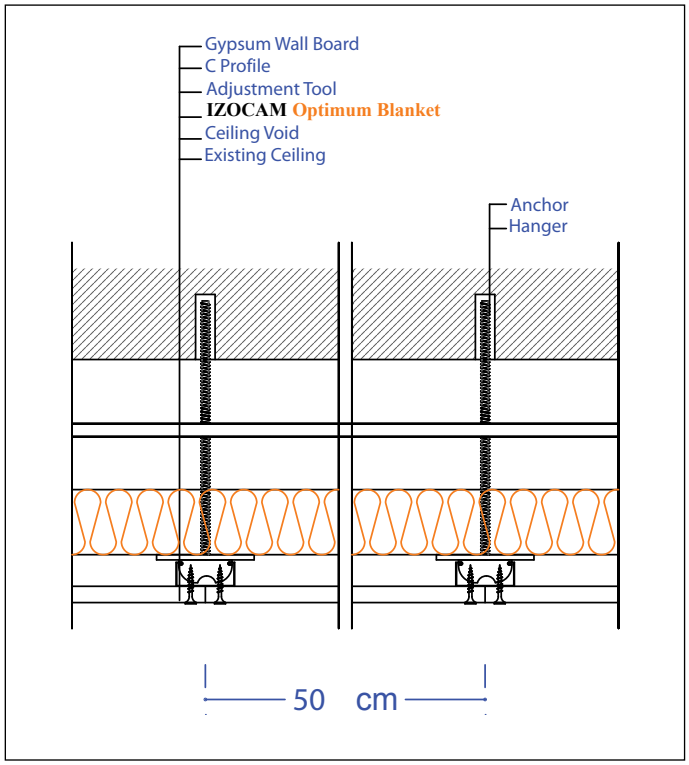
İzocam Optimum Ceiling

Properties	Symbol	Unit	Description		Tolerance	Standard
Material	-	-	Glass Wool		-	TS EN 13162
Density	ρ	kg/m³	15	22	+/-10%	-
Width	W	mm	1200		+/-1,5%	TS EN 822
Length	L	mm	5400	13500	+/-2%	TS EN 822
Thickness	t	mm	80	50	-5 or -5 % **	TS EN 823
Facing	-	-	Kraft Paper		-	-
Reaction to fire	-	-	C-s1, d0		-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,040	0,035	-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	2,00	1,40	-	-
Specific Heat *	c	kJ/(kg.K)	0,84		-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8		-	DIN 52214
Packaging Material	-	-	PE Film		-	-
Other Information	Maximum service temperature on the side faced with kraft paper is 90 °C.					

* Literature value.
** The biggest value is chosen at minus tolerance, the smallest value is chosen at plus tolerance.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Products should be in packages (10 each) and maximum 6 packages can be superposed.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.



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ZERO GLOBAL WARMING POTENTIAL
ZERO OZONE DEPLETION POTENTIAL

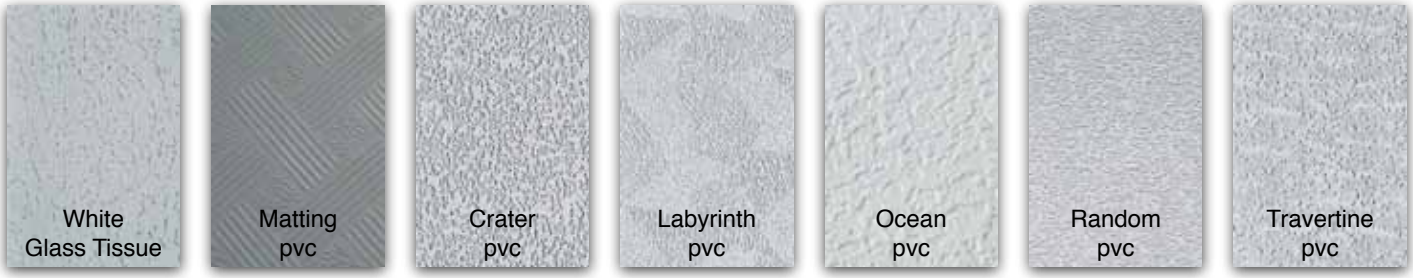
SUSPENDED CEILING BOARD

Sound Insulation · Fire Safety · Thermal Insulation

Suspended Ceiling Boards are made of glass wool boards faced with decorative glass tissue or PVC on one side. They are used for space acoustics, thermal insulation of under the floors and roofs, for aesthetical purposes to conceal HVAC installations and ducts from view or they are just used for decorative purposes.

Application

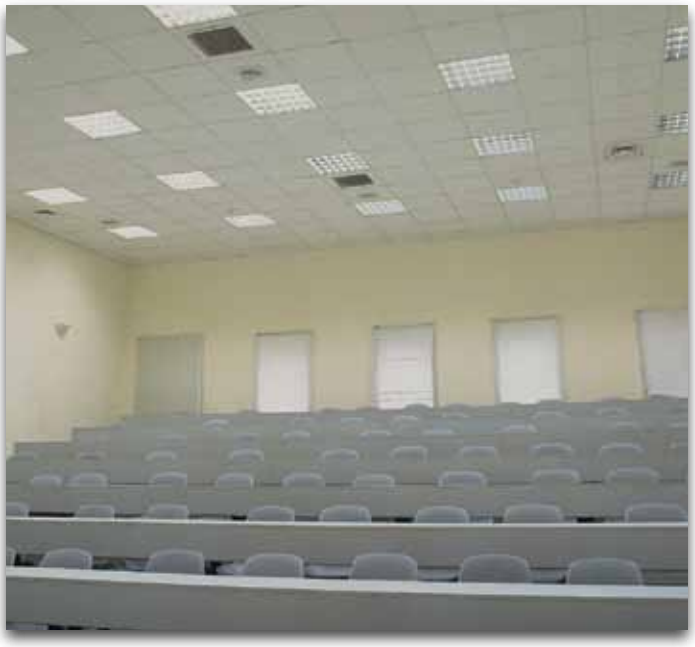
The fact that suspended ceiling boards are lightweight makes the application easier to proceed. It is recommended to prepare a ceiling tile plan before the application. Since the width of the board is 60 cm, the width of the application area is divided into multiples of 60. Taking the longitidunal axis of symmetry as the beginning offers a better aesthetic solution. Afterwards, the same process is carried out for the other axis for the board length of 120 cm or for a square of 60 x 60 cm. when the board is divided into two. Type and quantity of the lighting fixtures should be determined by the needs and should be designed and shown on the ceiling tile plan.



Name	Facing	Thickness (cm)	Width x Length (cm)	Package (m^2)
Labyrinth	pvc	2	60x60-120	7,2
Crater	pvc	2	60x60-120	7,2
Random	pvc	2	60x60-120	7,2
Travertine	pvc	2	60x60-120	7,2
Matting	pvc	2	60x60-120	7,2
White	Glass Tissue	2	60x60-120	7,2
Labyrinth	pvc	2,5	60x60-120	5,76
Crater	pvc	2,5	60x60-120	5,76
Random	pvc	2,5	60x60-120	5,76
Travertine	pvc	2,5	60x60-120	5,76
Matting	pvc	2,5	60x60-120	5,76
White	Glass Tissue	2,5	60x60-120	5,76

Sound absorbtion coefficient by frequency “αsabine”

Frequency (Hz.)	125	250	500	1000	2000	4000
2,5 cm	0,55	0,50	0,75	0,75	0,60	0,25



- *High thermal insulation*
- *Acoustic control*
- *Easy to apply*
- *Lightweight*

IZOCAM®

TECHNICAL DATA SHEET

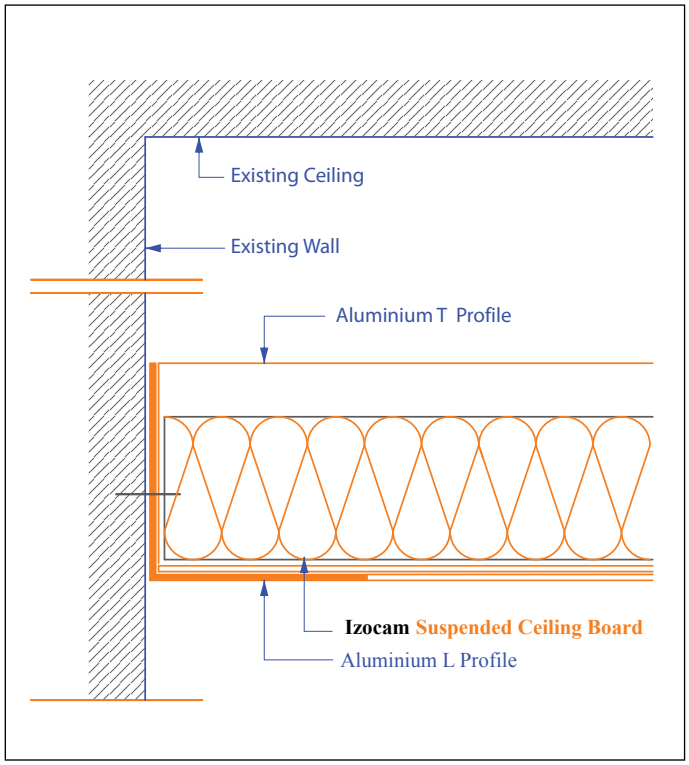
İzocam Suspended Ceiling Board

Properties	Symbol	Unit	Description		Tolerance	Standard
Material	-	-	Glass Wool		-	TS EN 13964
Density	ρ	kg/m³	50		+/-10%	-
Width	W	mm	600		+/-1,5%	TS EN 822
Length	L	mm	1200		+/-2%	TS EN 822
Thickness	t	mm	20 - 25		-1, +5	TS EN 823
Facing	-	-	Glass Tissue	PVC	-	-
Reaction to fire	-	-	A1	NPD	-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,031		-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	0,60	0,80	-	-
Sound Absorption	-	α_w	0,4	0,5	-	TS EN ISO 354
Specific Heat *	c	kJ/(kg.K)	0,84		-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8		-	DIN 52214
Packaging Material	-	-	Carton Box		-	-

* Literature value.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.
- The instructions on the packages should be followed.



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ACOUSTIC

Sound Insulation · Fire Safety · Thermal Insulation

It is a black glass wool blanket faced with acrylen on one side. It is used for the sound insulation, thermal insulation and fire safety of ventilating and air conditioning ducts.

Application

Before İzocam Acoustic is applied, duct surfaces to be used are cleaned to make sure the surface is free from dust and grease. The duct to be insulated should be measured inside to inside. Attention should be paid to the insulation thickness and İzocam Acoustic should be cut in accordance with the measurement. Self adhesive fixing pins are placed into the duct according to the air flow velocity. İzocam acoustic adhesive is spread over the duct surface by the help of a brush and the boards cut to be used are laid over. All transverse and longitudinal joints should be sealed to ensure they fit properly and no gap is left. Lock washers should be put over pins. Lenght of pins should assure minimum 10 % compression of insulation thickness. Excess ends of the pins should be snipped off.

Thickness (cm)	Width x Length (cm)	Package (m^2)
1,5	122 x 2000	24,40
2,5	122 x 1600	19,52

Sound absorbtion coefficient by frequency “α sabine”

Frequency (Hz.)	125	250	500	1000	2000	4000	NRC
2,5 cm	0,07	0,30	0,65	0,81	0,91	0,99	0,65

Pin Distances

Airflow Velocity (m/s) (feet/min.)	0 - 12,7 (0 - 2500)
A	102 mm (4”)
B	76 mm (3”)
C	305 mm (12”)
D	457 mm (18”)

- *High sound insulation*
- *High thermal insulation*
- *Fire safety*
- *Lightweight*

İZOCAM®

TECHNICAL DATA SHEET

İzocam Acoustic

Properties	Symbol	Unit	Description			Tolerance	Standard
Material	-	-	Glass Wool (Black Painted)			-	TS EN 14303
Density	ρ	kg/m³	24		32	+/-10%	-
Width	W	mm	1220			+/-1,5%	TS EN 822
Length	L	mm	16000	20000		+/-2%	TS EN 822
Thickness	t	mm	25	15		-1, +5	TS EN 823
Facing	-	-	Acrylene and Black Glass Tissue			-	-
Reaction to fire	-	-	A2-s3,d0			-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,035		0,033	-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	0,70	1,40	0,45	-	-
Specific Heat *	c	kJ/(kg.K)	0,84			-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8			-	DIN 52214
Packaging Material	-	-	PE Film			-	-
Other Information	Product is packaged on rigid bobbin. Maximum service temperature is 200 °C on glass tissue faced side. Maximum service temperature is 150 °C on acrylene faced side.						

* Literature value.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be put on top of each other with extra care.
- Only backshutter of the truck body should be opened during unloading.
- Unloading should be carried out from backside to the front.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be put into upright position during shipping and storing.
- Storing should be carried out by using pallets. But they should not superposed with pallets.
- Products should not be pulled by their package.
- Products should not be stepped on and should not be used as steps.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.

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ZERO GLOBAL WARMING POTENTIAL
ZERO OZONE DEPLETION POTENTIAL
EUCEB

DUCT BOARD

Sound Insulation · Fire Safety · Thermal Insulation

It is a glass wool board faced with aluminium foil or black glass tissue on one side used for external thermal insulation, internal sound insulation of air conditioning and ventilation ducts.

Application

According to the purpose of the application, it is decided which duct board is going to be used. One type of board is chosen among unfaced board, board faced with aluminium foil and board faced with glass tissue. Before the boards are applied, duct surfaces to be used are cleaned to make sure the surface is free from dust and grease. If cold air insulation is going to be applied for the external thermal insulation, definitely the boards faced with aluminium foil should be used against condensation risk. The boards are installed into the pins (5- 6 pins per m^2) fastened to the outside of the duct with foiled side facing the exterior. Board joints are sealed with self adhesive aluminium foil tape with great care to ensure that joints are water impermeable. When both thermal insulation and sound insulation are required for the ducts, duct board faced with glass tissue on the inside should be preferred. In that case, boards are installed to the pins which were fastened to the ducts from the inside so that the side with glass tissue faces inside.

Thickness (cm)	Width x Length (cm)	Package (m^2)
2	60 x 120	14,40
2,5	60 x 120	11,52
3	60 x 120	10,08
4	60 x 120	7,20
5	60 x 120	5,76

Sound absorbtion coefficient by frequency “αsabine”

Frequency (Hz.)	125	250	500	1000	2000	4000
5 cm	0,30	0,70	1,00	0,95	0,90	0,95

- *High thermal insulation*
- *Fire safety*
- *Sound insulation*
- *Easy to apply*
- *Lightweight*

IZOCAM®

TECHNICAL DATA SHEET

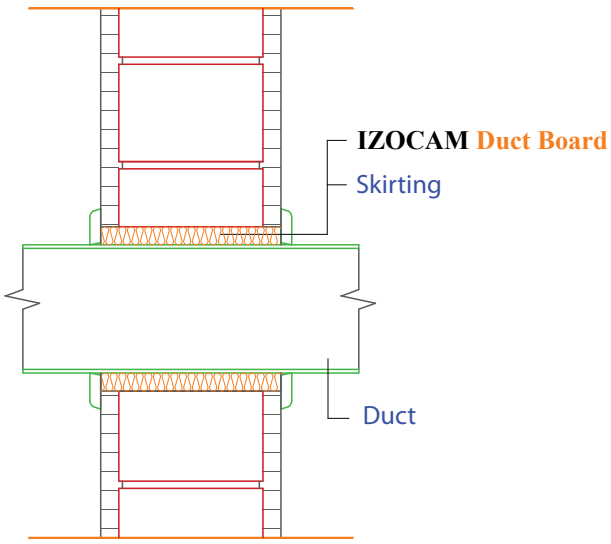
İzocam Duct Board

Properties	Symbol	Unit	Description					Tolerance	Standard
Material	-	-	Glass Wool					-	TS EN 14303
Density	ρ	kg/m³	50					+/-10%	-
Width	W	mm	600					+/-1,5%	TS EN 822
Length	L	mm	1200					+/-2%	TS EN 822
Thickness	t	mm	20	25	30	40	50	-1, +5	TS EN 823
Facing	-	-	Unfaced, Glass tissue, glass cloth faced				Al-foil	-	-
Reaction to fire	-	-	A1				C-s1,d0	-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,031					-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m².K/W	0,60	0,80	0,95	1,25	1,60	-	-
Specific Heat *	c	kJ/(kg.K)	0,84					-	EN 12524
Dynamic Elasticity *	Edyn	kN/m²	0,8					-	DIN 52214
Packaging Material	-	-	PE Film					-	-
Other Information	Maximum service temperature on the side faced with aluminium foil is 90 °C.								

* Literature value.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Products should be in packages (10 each) and maximum 6 packages can be superposed.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.



VIBRATION AND THERMAL INSULATION AT DUCT- WALL TRANSITION

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DUCT BLANKET

Sound Insulation · Fire Safety · Thermal Insulation

It is a glass wool blanket faced with aluminium foil on one side with 5 cm flaps along the edges. It is used for the external thermal insulation of ventilating and air conditioning ducts.

Application

Before the boards are applied, duct surfaces to be used are cleaned to make sure the surface is free from dust and grease. Special self adhesive fixing pins offer fast and easy application. How the blankets are cut depends on the shape of the duct. For the rectangular shaped duct system the blanket length to be cut should be determined as follows: The external perimeter of the duct + (8 x blanket thickness) + 5 cm. For the cylindrical shaped duct system the blanket length to be cut should determined as follows: The external perimeter of the duct + (2 x blanket thickness) + 5 cm. The 5 cm flap provides the cover of the longitudinal joints after the Glass wool is removed from aluminium foil. After the blankets are cut, special self adhesive pins are (5-6 pins per m^2) fixed on the duct system. Then the blankets are impaled over the pins. Blankets are held in position by retaining washers. The flap on the materials is then fixed by adhering, stapling or self adhesive aluminium foil tape.

Thickness (cm)	Width x Length (cm)	Package (m^2)
5	110 x 1000	11,00

- *High thermal insulation*
- *Fire safety*
- *Sound insulation*
- *Easy to apply*
- *Lightweight*

IZOCAM®

TECHNICAL DATA SHEET

İzocam Duct Blanket

Properties	Symbol	Unit	Description	Tolerance	Standard
Material	-	-	Glass Wool	-	TS EN 14303
Density	ρ	kg/m^3	24	+/-10%	-
Width	W	mm	1100	+/-1,5%	TS EN 822
Length	L	mm	10000	+/-2%	TS EN 822
Thickness	t	mm	50	-1, +5	TS EN 823
Facing	-	-	Al-foil	-	-
Reaction to fire	-	-	C-s1, d0	-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,035	-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m^2.K/W	1,40	-	-
Specific Heat *	c	kJ/(kg.K)	0,84	-	EN 12524
Dynamic Elasticity *	Edyn	kN/m^2	0,8	-	DIN 52214
Packaging Material	-	-	PE Film	-	-
Other Information	Maximum service temperature on the side faced with aluminium foil is 90 °C.				

* Literature value.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be put on top of each other with extra care.
- Only backshutter of the truck body should be opened during unloading.
- Unloading should be carried out from backside to the front.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be put into upright position during shipping and storing.
- Storing should be carried out by using pallets. But they should not superposed with pallets.
- Products should not be pulled by their package.
- Products should not be stepped on and should not be used as steps.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.

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ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

EUCEB

İzocam
PREFABRICATED DUCT

It is a glass wool board faced with aluminium foil on one side and black glass tissue on the other side or faced with aluminium foil on both sides. It is used for all the buildings that need ventilating and air conditioning ducts. Owing to its vibration absorbing performance, it is used for the buildings in which it is preferred that HVAC equipments run quietly. The duct is also used for multi storey buildings regarding to fire safety since it is noncombustible.

Application

Prefabricated Duct is easily assembled at the construction site. The boards are marked to be cut according to the sizes of the edges. Folding grooves are formed by cutting with special tools following the markings. The board is folded into a duct from the grooves. After the joints are stapled they are sealed with a tape. Each duct is joined to each other on the floor. The holes are opened and with the help of a member it is hung where it needed to be. It is possible to use all kinds of hanging methods and accessories for the installation. İzocam Prefabricated Duct should not be used in a place where the relative humidity exceeds 95 %. The boards should be used in the systems where maximum air velocity is 12 m/sn, maximum internal pressure is 51 mmSS, maximum edge length is 2,4 m.

Thickness (cm)	Width x Length (cm)	Package (m^2)
2,5	120 x 290	24,36

Sound absorbtion coefficient by frequency "αsabine"
Inner side faced with glass tissue

Frequency (Hz.)	125	250	500	1000	2000	4000
2,5 cm	0,07	0,22	0,63	0,91	1,11	1,13

Inner side faced with aluminium foil

Frequency (Hz.)	125	250	500	1000	2000	4000
2,5 cm	0,05	0,19	0,50	0,52	0,46	0,32

- *High thermal insulation*
- *High sound insulation*
- *Fire safety*
- *Lightweight*
- *Fast and easy installation*

TECHNICAL DATA SHEET

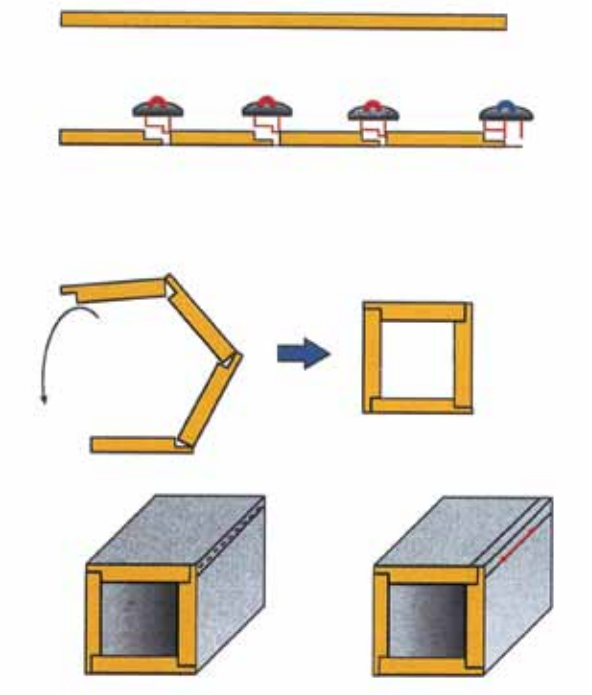
İzocam Prefabricated Duct

Properties	Symbol	Unit	Description	Tolerance	Standard
Material	-	-	Glass Wool	-	TS EN 14303
Density	ρ	kg/m^3	85	+/-10%	-
Width	W	mm	1200	+/-1,5%	TS EN 822
Length	L	mm	2900	+/-2%	TS EN 822
Thickness	t	mm	25	-1, +5	TS EN 823
Facing	-	-	Outer side faced with al-foil, Inner side with black glass tissue	-	-
Reaction to fire	-	-	C-s1, d0	-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,031	-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m^2.K/W	0,80	-	-
Max. Service Temperature	-	°C	Outer side of duct 65 Inner side of duct 100	-	-
Specific Heat *	c	kJ/(kg.K)	0,84	-	EN 12524
Dynamic Elasticity *	Edyn	kN/m^2	0,8	-	DIN 52214
Packaging Material	-	-	Carton Box	-	-
Other Information	Both sides can be faced with aluminium foil. Tapes must be suitable for UL-181 standard.				

* Literature value.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.
- The instructions on the packages should be followed.



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IZOCAM

ISOVER SAINT-GOBAIN
manufactured under licence.

ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

EUCEB

www.izocam.com.tr

GLASS WOOL PREFABRICATED PIPE

Sound Insulation · Fire Safety · Thermal Insulation

These are the pipes either unfaced or faced with aluminium foil manufactured from glass wool of high unit weight. They are used for the thermal insulation of industrial pipes, central heating and solar energy installations, for the insulation against freezing and condensation of the pipes and for vibration and sound insulation of the pressure water pipes as well.

Application

Appropriate Glass Wool Prefabricated Pipe according to nominal diameter of the pipe line to be used is chosen. It is placed by parting cut line. The application is completed so that no gap is left between the joints. Unfaced pipes are coated with bituminous emulsion or bituminous membranes, galvanized or aluminium jacket. Coating joints are fastened by adhering, clamping, riveting or screwing. For the pipes coated with aluminium foil that are used for the insulation of cold lines, adhesive tape on overlap allowance and vapour barrier foil coating make the installation process notably easy. In this application, the joint of the two pipes should definitely be sealed with an adhesive aluminium foil tape with 7,5 mm width and vapour passage should totally be prevented. If a double layer application for the pipe insulation is carried out, care should be taken to line up the joint of second layer with the bottom of the pipe and to ensure the joints are staggered.

Pipe Diameter		Thickness (mm)						
inch	mm	25	30	40	50	60	80	100
1/4	13	+	+	+	+			
1/2	21	+	+	+	+	+		
3/4	27	+	+	+	+	+		
1	33	+	+	+	+	+		
1 1/4	42	+	+	+	+	+		
1 1/2	48	+	+	+	+	+		
*	57	+	+	+	+	+		
2	60	+	+	+	+	+	+	
*	63	+	+	+	+	+	+	
*	70	+	+	+	+	+	+	
2 1/2	76	+	+	+	+	+	+	+
*	83	+	+	+	+	+	+	+
3	89	+	+	+	+	+	+	+
*	102	+	+	+	+	+	+	+
*	108	+	+	+	+	+	+	+
4	114	+	+	+	+	+	+	+
*	127	+	+	+	+	+	+	+
*	133	+	+	+	+	+	+	+
5	140	+	+	+	+	+	+	+
*	159	+	+	+	+	+	+	+
6	169	+	+	+	+	+	+	+
*	193		+	+	+	+	+	+
8	219		+	+	+	+	+	+
*	244		+	+	+	+	+	+
10	273		+	+	+	+	+	+
12*	324		+	+	+	+		
14*	356		+	+	+	+		

* Grey lines are produced by order.

Thermal conductivity related with temperature			
Thermal Conductivity (W/mk)	Avarage Temperature (°C)	50	0,036
		100	0,043
		150	0,050
		200	0,059
		250	0,069

- *High thermal insulation*
- *Fire safety*
- *Fast and easy installation*
- *Sound and vibration insulation*

IZOCAM®

TECHNICAL DATA SHEET

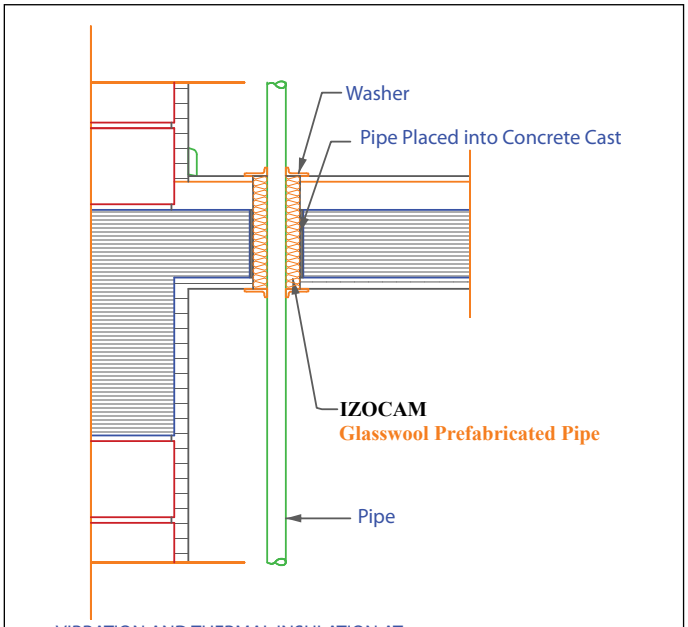
İzocam Glass Wool Prefabricated Pipe

Properties	Symbol	Unit	Description	Tolerance	Standard
Material	-	-	Glass Wool	-	TS EN 14303
Density	-	kg/m^3	See Table	± 15 %	-
Wall Thickness	-	mm	See Table	± 3 mm or ±6 % (which is greater)	TS EN 823
Length	-	mm	1200	± 5 mm	TS EN 822
Inner Diameter	-	mm	See Table	+4 mm, -1 mm or +2 %, -1 % (which is greater)	TS EN 13467
Declared Thermal Conductivity (10°C)	-	W/m.K	0,035	< 0,035	TS EN 12667
Reaction to fire	-	-	A1 / C_L-s1,d0	-	TS EN 13501-1
Max. Service Temperature	-	°C	250	max. 250	TS EN 14707
Water Absorption	-	kg/m^2	< 1	max. 1	TS EN 13472
Facing	-	-	Unfaced / Al-foil	-	-
Package	-	-	PE Bag	-	-

Diameter		Pipe Thickness (mm)															
inch	mm	20 mm		25 mm		30 mm		40 mm		50 mm		60 mm		80 mm		100 mm	
		kg/m^3	gr/ad.	kg/m^3	gr/ad.	kg/m^3	gr/ad.	kg/m^3	gr/ad.	kg/m^3	gr/ad.	kg/m^3	gr/ad.	kg/m^3	gr/ad.	kg/m^3	gr/ad.
1/4	15	95	251	80	301	80	407	80	664	80	980	80	1357	-	-	-	-
1/2	21	90	288	75	336	75	445	75	707	75	1025	70	1306	-	-	-	-
3/4	27	90	326	75	375	75	492	75	769	75	1103	70	1393	-	-	-	-
1	33	80	332	75	424	75	551	75	848	70	1122	70	1504	-	-	-	-
1 1/4	42	80	383	75	484	70	582	70	881	70	1234	60	1405	-	-	-	-
1 1/2	48	80	419	75	527	70	629	70	945	70	1313	60	1487	-	-	-	-
2	60	80	492	75	612	70	725	60	919	60	1261	60	1649	60	2561	-	-
2 1/2	76	-	-	75	725	70	851	60	1064	60	1442	60	1866	60	2851	60	4015
3	89	-	-	75	817	70	954	60	1181	60	1589	60	2042	60	3085	60	4309
4	114	-	-	75	997	70	1156	60	1412	60	1877	60	2389	60	3547	60	4886
5	140	-	-	80	1247	80	1542	60	1632	60	2153	60	2720	60	3988	60	5438
6	169	-	-	80	1464	80	1801	60	1892	60	2478	60	3110	60	4508	60	6087
8	219	-	-	-	-	80	2253	70	2734	60	3042	60	3787	60	5411	60	7216
10	273	-	-	-	-	80	2741	70	3304	60	3653	60	4520	60	6388	60	8437
12	324	-	-	-	-	60	2402	60	3293	60	4230	60	5212	60	7307	-	-
14	356	-	-	-	-	60	2619	60	3583	60	4592	60	5485	-	-	-	-

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be put on top of each other with extra care.
- Only backshutter of the truck body should be opened during unloading.
- Unloading should be carried out from backside to the front.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- During shipping maximum 8 boxes, during storing maximum 5 boxes should be superposed.
- Products should not be put into upright position during shipping and storing.
- Storing should be carried out on pallets.
- Boxes should be carried by their handles.
- Boxes should not be stepped on and should not be used as steps.
- Boxes should not be unloaded by pushing or throwing from the truck.



VIBRATION AND THERMAL INSULATION AT PIPE - SLAB TRANSITION

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ZERO GLOBAL WARMING POTENTIAL
ZERO OZONE DEPLETION POTENTIAL
EUCEB

SOLAR BLANKETS
35C - 35C BLACK

It is an unfaced glass wool blanket, specially coloured and manufactured in two different types as Solar 35C and Solar 35C Black which are certified by SPF for outgassing. It is used for thermal insulation of solar collectors.

Application

Solar blankets are used for the thermal insulation of solar collectors. If the case height is suitable, the product is placed between absorbing surface and the soffit insulation by leaving a 10 – 20 mm gap. In order to ventilate the collectors, 2-3 mm diameter holes should be drilled where rain water cannot reach. Otherwise, it may cause condensation of water vapor on window panes at nights and that may affect the efficiency of the collector. When Solar 35C and Solar 35C Black products are used no stain appears on the collector panes even if there is condensation.

Thickness (cm)	Width x Length (cm)	Package (m^2)
3	110 x 2130	23,43
4	110 x 2130	23,43
5	110 x 2130	23,43

- *High thermal insulation*
- *SPF certified*
- *Fire safety*
- *Easy to apply*
- *Available in different sizes*
- *Lightweight*

TECHNICAL DATA SHEET

İzocam Solar Blankets 35C - 35C Black

Properties	Symbol	Unit	Description			Tolerance	Standard
Material	-	-	Glass Wool			-	-
Density	ρ	kg/m³	24	18		-0 / +6	-
Width *	W	mm	1100			+/-1,5%	TS EN 822
Length *	L	mm	20400 or 21300			+/-2%	TS EN 822
Thickness	t	mm	30	40	50	-1 / +3 (T5)	TS EN 823
Facing	-	-	Unfaced / Black Colored			-	-
Reaction to fire	-	-	A1			-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,035			-	TS EN 13162
Thermal Resistance	R_D	m².K/W	0,85	1,10	1,40	-	TS EN 13162
Max. Service Temperature	-	°C	250			-	-
Water Vapor Diffusion Resistance Coefficient **	μ	-	1			-	-
Specific Heat **	c	kJ/(kg.K)	0,84			-	EN 12524
Packaging Material	-	-	PE Film			-	-
Other Information	SPF (Solartechnik Prüfung Forschung) certified product that pass the outgassing test for condensation of the inner glass surface.						

* For further information please contact to İzocam.
** Literature value.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- The packages should be put on top of each other with extra care.
- Only backshutter of the truck body should be opened during unloading.
- Unloading should be carried out from backside to the front.
- The products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be put into upright position during shipping and storing.
- Storing should be carried out by using pallets. But the products should not be superposed with pallets.
- Products should not be pulled by their package.
- Products should not be stepped on and should not be used as steps.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.

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ENCYSOL2012/01

COLLECTOR BOARD

It is a glass wool board manufactured with black color in special sizes. It is used for thermal insulation of solar collectors and tanks.

Application

For the thermal insulation applications of solar collectors, collector blankets and boards are used together. It is also possible to use glass wool boards faced with aluminium foil in order to prevent heat losses from absorptive surface to the inside body due to the radiation and in order to reflect that to the selective surface. If the case height is suitable, the product is placed between the absorbing surface and the soffit insulation by leaving a 10 – 20 mm gap. In order to ventilate the collectors, 2-3 mm diameter holes should be drilled where rain water cannot reach. Otherwise, it may cause condensation of water vapor on window panes at nights and that may affect the efficiency of the collector.

Thickness (cm)	Width x Length (cm)	Package (m^2)
2	60 x 90	10,80
2	60 x 120	10,40

- *High thermal insulation*
- *Fire safety*
- *Easy to apply*
- *Available in different sizes*
- *Lightweight*

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TECHNICAL DATA SHEET

İzocam Collector Board

Properties	Symbol	Unit	Description	Tolerance	Standard
Material	-	-	Glass Wool	-	-
Density	ρ	kg/m^3	50	+/-10%	-
Width *	W	mm	600	+/-1,5%	TS EN 822
Length *	L	mm	900	+/-2%	TS EN 822
Thickness	t	mm	20	-1 / +5	TS EN 823
Facing	-	-	Unfaced / Black Glass Tissue	-	-
Reaction to fire	-	-	A1	-	ISO 1182
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,031	-	DIN 4108
Thermal Resistance	R_D	m^2.K/W	0,60	-	-
Max. Service Temperature	-	°C	250	-	-
Water Vapor Diffusion Resistance Coefficient **	μ	-	1	-	DIN 52615
Specific Heat **	c	kJ/(kg.K)	0,84	-	EN 12524
Dynamic Elasticity **	Edyn	kN/m^2	0,8	-	DIN 52214
Packaging Material	-	-	PE Film	-	-
Other Information	Colour of the product is grey. Maximum service temperature on the side faced with glass tissue is 200 °C.				

* For further information please contact to İzocam.
** Literature value.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors if the weather is rainy.
- Loading and unloading should be done by (at least) two people.
- Products should be put on top of each other with extra care.
- Only backshutter of the truck body should be opened during unloading.
- Unloading should be carried out from backside to the front.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be put into upright position during shipping and storing.
- Storing should be carried out by using pallets. But they should not superposed with pallets.
- Products should not be pulled by their package.
- Products should not be stepped on and should not be used as steps.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.
- Products should be in packages (10 each) and maximum 6 packages can be superposed.

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ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

EUCEB

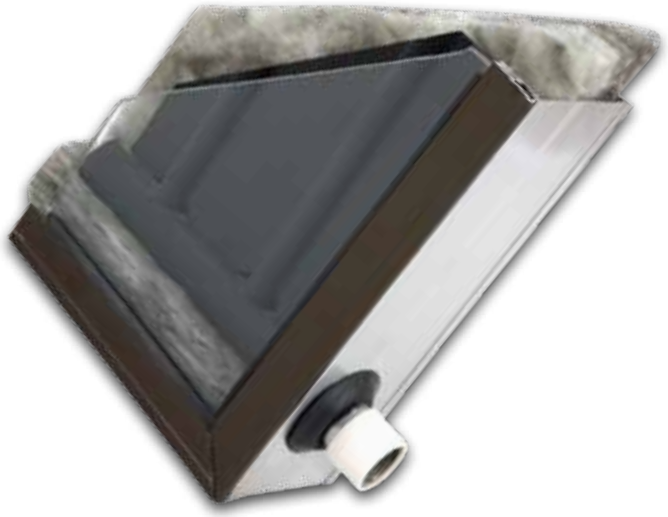
COLLECTOR BLANKET

It is a glass wool blanket manufactured with black color in special sizes. It is used for thermal insulation of solar collectors.

Application

For the thermal insulation applications of solar collectors, collector blankets and boards are used together. If the case height is suitable, the product is placed between absorbing surface and the soffit insulation by leaving a 10 – 20 mm gap. It is also possible to use glass wool boards faced with aluminium foil in order to prevent heat losses from absorptive surface to the inside body due to the radiation and in order to reflect that to the selective surface. In order to ventilate the collectors, 2-3 mm diameter holes should be drilled where rain water cannot reach. Otherwise, it may cause condensation of water vapor on window panes at nights and that may affect the efficiency of the collector. For the applications carried out in order to prevent the heat losses from hot water storage surfaces by convection and radiation, constructive precautions should be taken against spacers. Care should be taken for blankets in order not to loose their thicknesses.

Thickness (cm)	Width x Length (cm)	Package (m^2)
5	93 x 1950	18,13
5	93 x 2000	18,60



- *High thermal insulation*
- *Fire safety*
- *Easy to apply*
- *Available in different sizes*
- *Lightweight*

IZOCAM®

TECHNICAL DATA SHEET

İzocam Collector Blanket

Properties	Symbol	Unit	Description		Tolerance	Standard
Material	-	-	Glass Wool		-	-
Density	ρ	kg/m³	11	14	-0 / +6	-
Width *	W	mm	930		+/-1,5%	TS EN 822
Length *	L	mm	19500		+/-2%	TS EN 822
Thickness	t	mm	50		-1 / +3 (T5)	TS EN 823
Facing	-	-	Unfaced, Black Colored		-	-
Reaction to fire	-	-	A1		-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,043	0,040	-	TS EN 13162
Thermal Resistance	R_D	m².K/W	1,15	1,25	-	TS EN 13162
Max. Service Temperature	-	°C	250		-	-
Water Vapor Diffusion Resistance Coefficient **	μ	-	1		-	TS EN 12086
Specific Heat **	c	kJ/(kg.K)	0,84		-	EN 12524
Dynamic Elasticity **	Edyn	kN/m²	0,8		-	DIN 52214
Packaging Material	-	-	PE Film		-	-
Other Information	Colour of the product is black.					

* For further information please contact to İzocam.
** Literature value.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors if the weather is rainy.
- Loading and unloading should be done by (at least) two people.
- Products should be put on top of each other with extra care.
- Only backshutter of the truck body should be opened during unloading.
- Unloading should be carried out from backside to the front.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be put into upright position during shipping and storing.
- Storing should be carried out by using pallets. But they should not superposed with pallets.
- Products should not be pulled by their package.
- Products should not be stepped on and should not be used as steps.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.

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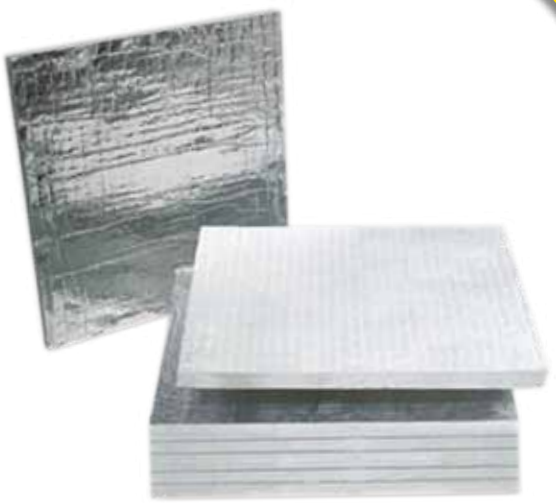
ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

EUCEB

OVEN BLANKET
WHITE



It is a noncohesive white glass wool blanket which is given rigidity by needle-punching technique.

Application

Since it is supplied to the firms producing ovens, it is applied according to the details which the customer provides. It is possible to manufacture with different technical properties in different sizes regarding to the customer needs.

Thickness (mm)	Width x Length (mm)	Package (m^2)
20	450 x 1750	12,60
20	450 x 1200	12,96
25	340 x 1000	8,16
25	370 x 1730	19,20
25	450 x 1750	11,03
30	450 x 1750	9,45

- *High thermal insulation*
- *Available in different sizes*
- *Easy to apply*
- *Creates no odour*

İZOCAM

TECHNICAL DATA SHEET

İzocam Oven Blanket - White

Properties	Symbol	Unit	Description		Tolerance	Standard
Material	-	-	Needled Glass Wool		-	-
Density	ρ	kg/m^3	40 - 110		+/-10%	-
Width	W	mm	Width changes by request		+/-1,5%	TS EN 822
Length	L	mm	Length changes by request		+/-2%	TS EN 822
Thickness	t	mm	13 - 40		-1, +5	TS EN 823
Facing	-	-	Unfaced	Al-foil	-	-
Reaction to fire	-	-	A1	A2-s1,d0	-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,031		-	TS EN 12667 TS EN 12939
Declared Thermal Conductivity (100 °C)	λ_D	W/m.K	0,041		-	ISO 8302
Declared Thermal Conductivity (200 °C)	λ_D	W/m.K	0,055		-	ISO 8302
Declared Thermal Conductivity (300 °C)	λ_D	W/m.K	0,072		-	ISO 8302
Declared Thermal Conductivity (400 °C)	λ_D	W/m.K	0,092		-	ISO 8392
Declared Thermal Conductivity (500 °C)	λ_D	W/m.K	0,118		-	ISO 8302
Max. Service Temperature (permanent)	-	°C	500		-	-
Specific Heat *	c	kJ/(kg.K)	0.84		-	EN 12524
Water Vapor Diffusion Resistance Coefficient **	μ	-	1		-	DIN 52615
Dynamic Elasticity *	Edyn	kN/m^2	0.8		-	DIN 52214
Pulling strength	-	gf/g	100		-	-
Water Absorption	-	%	< 0,1		-	-
Packaging Material	-	-	Carton box		-	-
Other Information	Thermal conductivity values are appropriate to products that has the density 100 kg/m^2. Maximum service temperature on the side faced with aluminium foil is 90°C. Water vapor diffusion resistance is not demanded for aluminium foil faced products.					

* Literature value.
** Declaration of licensor for equivalent products of İzocam.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors if the weather is rainy.
- Loading and unloading should be done by (at least) two people.
- Products should be put on top of each other with extra care.
- Only backshutter of the truck body should be opened during unloading.
- Unloading should be carried out from backside to the front.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be put into upright position during shipping and storing.
- Storing should be carried out by using pallets. But they should not superposed with pallets.
- Products should not be pulled by their package.
- Products should not be stepped on and should not be used as steps.
- Blanket bags should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.

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ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

EUCEB

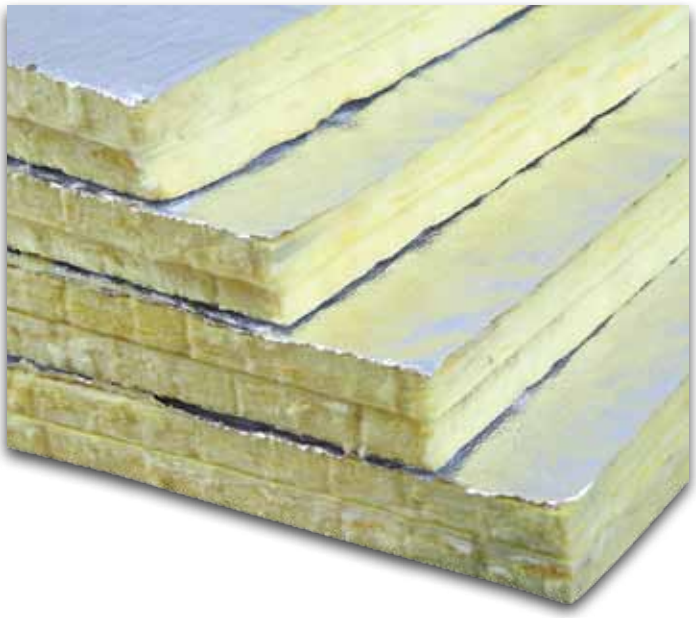
IZOPAN

It is a hard glass wool board faced with aluminium foil on one side, yellow glass tissue on the other side. It is used behind various heat sources such as radiator, stove, oven as heat holder and reflector.

Application

The distance between the radiator and the wall should not be less than 1,5 cm, the thickness of the board, to be able to perform the application. The boards are placed between radiator and the exterior wall in a manner that the aluminium foiled side faces the inner space. Anchor distance is marked on the radiators, which are anchored to the wall on the side. Then, slots are cut into the boards through the marking by knife. Board is placed behind the radiator so that slots and anchorage rods meet. If the radiator is supported from the floor, the boards are placed between radiator and the wall directly and leaned against the wall so the foiled side faces inner surface. It offers more thermal saving by its property of reflecting thermal radiation.

Thickness (cm)	Width x Length (cm)	Package (m^2)
1,5	55 x 90	14,85



- *High thermal insulation*
- *Fast and easy installation*
- *Easy to cut*

İZOCAM

TECHNICAL DATA SHEET

İzocam Izopan

Properties	Symbol	Unit	Description	Tolerance	Standard
Material	-	-	Glass Wool	-	TS EN 14303
Density	ρ	kg/m^3	100	+/-10%	-
Width	W	mm	550	+/-1,5%	TS EN 822
Length	L	mm	900	+/-2%	TS EN 822
Thickness	t	mm	15	-1, +5	TS EN 823
Facing	-	-	Al-foil + Yellow Glass Tissue	-	-
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,031	-	TS 901
Thermal Resistance	R_D	m^2.K/W	0,45	-	-
Max. Service Temperature	-	°C	200	-	-
Specific Heat *	c	kJ/(kg.K)	0,84	-	EN 12524
Dynamic Elasticity *	Edyn	kN/m^2	0,8	-	DIN 52214
Packaging Material	-	-	PE Bag + Carton Box	-	-
Other Information	Maximum service temperature on the side faced with aluminium foil is 90 °C.				

* Literature value.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors in case of rainy weather conditions.
- Loading and unloading should be done by (at least) two people.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Products should not be superposed with pallets.
- Products should not be put into upright position during shipping and storing.
- Products should not be stepped on and should not be used as steps.
- Products should not be pulled by their package.
- Before binding, hard cardboards (minimum 20 x 50 cm) should be put on the corners of packages to protect against possible damages by ropes.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.
- The instructions on the boxes should be followed.

Izocam is not responsible for any problem because of misprinting. Izocam, the manufacturer, reserves the right to alter product specifications without prior notice. Izocam also manufactures special products upon request. For your requirements, you are requested to contact our Export Department.

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IZOCAM

ISOVER SAINT-GOBAIN
manufactured under licence.

ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

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