FLAT ROOF BOARD

Sound Insulation | Fire Safety | Thermal Insulation

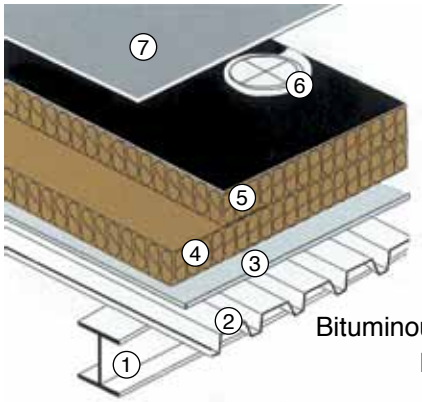
Flat Roof Board is stone wool board which is manufactured either unfaced for both faces or coated with glass tissue reinforced bitumen on one face. They are utilized for the thermal insulation, sound insulation and fire safety of all kinds of metal and timber roofs of all inclinations, of accessible or inaccessible conventional flat roofs.

Application

İzocam Stone Wool Flat Roof Boards are used for thermal insulation, sound insulation and fire safety purposes under waterproofing. Inaccessible Flat Roof Applications: 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. According to thermal insulation thickness, one or two layers of İzocam Stone Wool Flat Roof Board are laid on vapour barrier layer by fastening to the corrugated metal cover with anchors which have large washers. It is recommended to alternate board seams when two layer application is preferred. On top of that, waterproofing membrane (bituminous membrane, pvc, tpo, etc.) is applied. If there is any concrete or autoclaved aerated (AAC) roof panels, vapour barrier membranes are spread on and adhered to them. On top of that, İzocam Stone Wool Bituminous Flat Roof Boards are laid broadly and are fastened with anchor with wide washers. Then waterproofing cover is applied on top. Accessible Flat Roof Applications: Levelling concrete is applied on concrete or AAC roof panels. Then vapour barrier membrane is placed on and adhered to it. After that, İzocam Stone Wool Bituminous Flat Roof Boards are laid broadly. Waterproofing cover is applied on top and a layer of felt is laid on. The application is completed with the desired floor covering.

	Thickness (cm)	Width x Length (cm)	Package (m²)
Unfaced	3	60 x 120	5,76
	4	60 x 120	4,32
	5	60 x 120	3,60
	6	60 x 120	2,88
	8	60 x 120	1,50
	10	60 x 120	1,44
	12	60 x 120	1,44

	Thickness (cm)	Width x Length (cm)	Package (m²)
Bitumen	3	100 x 120	6,00
	4	100 x 120	4,80
	5	100 x 120	3,60
	6	100 x 120	3,60
	8	100 x 120	2,40



Structural System ①
İzocam Tekiz ②
Corrugated Sheet
Vapour Barrier ③
Flat Roof Board ④
Bituminous Flat Roof Board ⑤
Fastening Element ⑥
Waterproofing ⑦

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

İZOCAM®

TECHNICAL DATA SHEET

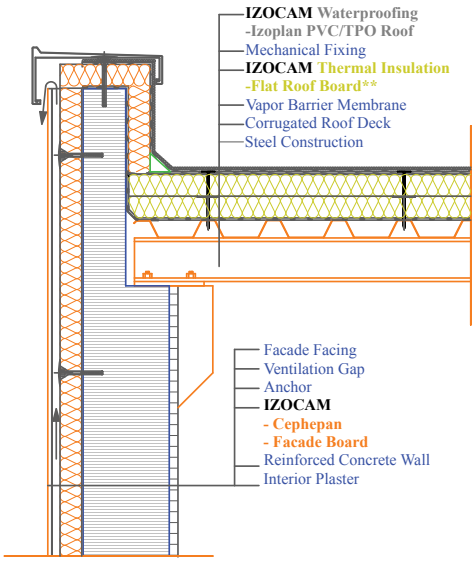
İzocam Flat Roof Board

Properties	Symbol	Unit	Description							Tolerance	Standard
Material	-	-	Stone Wool							-	TS EN 13162
Density	ρ	kg/m³	150							+/-10%	-
Width	W	mm	600 - 1000							+/-1,5%	TS EN 822
Length	L	mm	1200							+/-2%	TS EN 822
Facing	-	-	Unfaced				Bitumen faced			-	-
Thickness	t	mm	30	40	50	60	80	100	120	-3 or -3 %, +5 or 5 % *	TS EN 823
Reaction to fire	-	-	A1				NPD			-	TSEN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/mK	0,039							-	TS EN 13162
Thermal Resistance	R_D	m².K/W	0,75	1,00	1,25	1,50	2,05	2,55	3,05	-	TS EN 13162
Water Vapor Diffusion Resistance Coefficient	μ	-	1							-	TS EN 12086
Compressive Strength	σ	kPa	25	40	60	65	75	85	100	-	TS EN 826
Short Term Water Absorption	-	kg/m²	< 1							-	TS EN 1609
Long Term Water Absorption		(v/v) %	1,5	2	2,5	3	4	5	6	-	Manufacturer's Method
Packaging Material	-	-	PE Film							-	-
Other Information	Boards could be coated with yellow/black glass tissue and aluminium foil. Bitumen weight is 1200-1500 gr/m².										

* 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.



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

ENTYTCL2012/01

FACADE BOARD

İzocam Facade Board is a stone wool board either unfaced or with only one side faced with aluminium foil 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 anchors. For prefabricated panel as well, the boards are placed in to the panels 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	11,52
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
12	60 x 120	2,16

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

TECHNICAL DATA SHEET

İzocam Facade Board

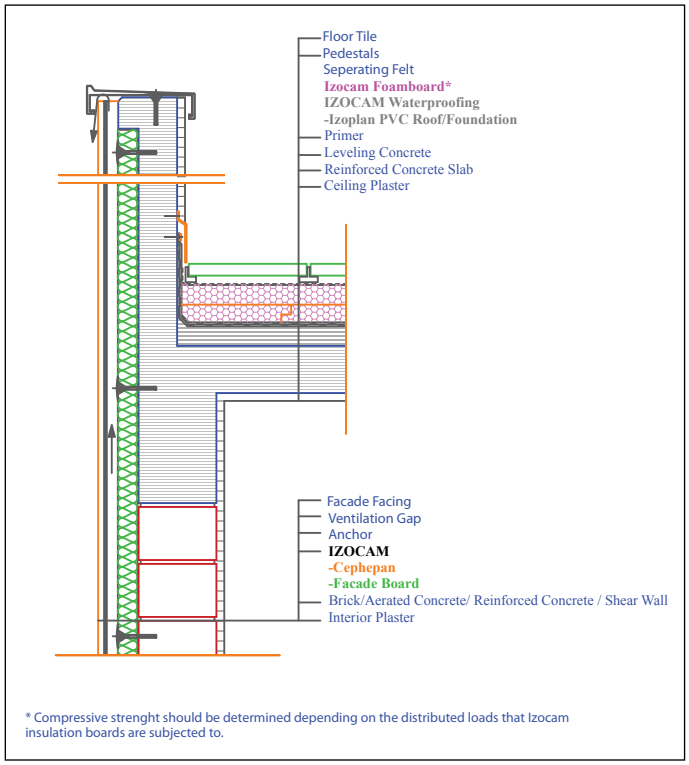
Properties	Symbol	Unit	Description							Tolerance	Standard
Material	-	-	Stone Wool							-	TS EN 13162
Density	ρ	kg/m³	52							+/-10%	-
Width	W	mm	600							+/-1,5%	TS EN 822
Length	L	mm	1200							+/-2%	TS EN 822
Thickness	t	mm	30	40	50	60	80	100	120	-3 or -3 %, +5 or 5 % *	TS EN 823
Facing	-	-	Unfaced, Black glass tissue, Yellow glass tissue / Aluminium foil							-	-
Reaction to fire **	-	-	A1							-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/mK	0,035							-	TS EN 13162
Thermal Resistance	R_D	m².K/W	0,85	1,10	1,40	1,70	2,25	2,85	3,40	-	TS EN 13162
Water Vapor Diffusion Resistance Coefficient	μ	-	1							-	TS EN 12086
Compressive Strength	σ	kPa	None							-	TS EN 826
Short Term Water Absorption	-	kg/m²	< 1							-	TS EN 1609
Long Term Water Absorption	-	(v/v) %	1,50	2,00	2,50	3,00	4,00	5,00	6,00	-	Manufacturer's Method
Packaging Material	-	-	PE Film							-	-
Other Information	Maximum service temperature on the side faced with glass tissue is 200 °C and on the side faced with aluminium foil is 90°C.										

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

** Aluminium foil covered boards, which are 30 mm thickness, have the reaction to fire class B-s1,d0. Other aluminium foil covered boards have the reaction to fire class A2-s1,d0.

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.



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

ENTYDCL2012/01

MANTO STONE WOOL

Sound Insulation | Fire Safety | Thermal Insulation

It is an unfaced stone wool boards that is produced specially with respect to TS EN 13500 standards. It is utilized at external thermal insulation composite systems for thermal insulation, sound insulation and fire safety purposes.

Application

First of all, the surface to be used in the application should be checked to ensure that it is smooth and dry. If the surface is rough and with scrapes it should be cleaned by brushing. Unevenness, major defects and cracks should be repaired by means of plaster. The boards can be adhered to the surface using cement based fixing mortar by different methods. The boards should be laid down without any gap side by side on the wall surface shortly after spreading fixing mortar over the boards. The adhesive should not be spread near the edges of the board in order to prevent the adhesive getting into the joints. The boards are laid down in an alternating pattern at the facades and the corners. When the fixing mortar is completely dry (approximately after 24 hours) the anchoring process can be started. Special insulation fastening anchors are used which are chosen with respect to the wall properties. Tiled surfaces or surfaces with old plaster are not suitable for anchoring. After anchoring process, reinforced layer is formed. Cement based undercoat plaster is applied to the surface by trowel. Afterwards, an alkali resistant, glass fiber based reinforcement mesh is placed on top by trowel in such a manner that the edges are overlapped by 10 cm. Consequently, second coat plaster is applied on the mesh and the reinforced layer comes to an end. When the reinforced layer is completely dry; permeable, solvent-free decorative cladding material with the desired texture is applied to the reinforced layer using a trowel or roller and the process is completed. Exterior cladding thickness and the quantity to be applied depend on the plaster type. Different surface forms can be achieved on the finishing plaster by different polishing methods. This application is correct in terms of that it removes thermal bridges by insulating wall surfaces as well as it protects the building from atmospheric conditions and prevents physical changes which occur in building components such as expansion or contraction due to temperature change. For the insulation applications of exterior walls from the exterior, using Manto Stone Wool boards provides sound insulation and fire safety as well as thermal insulation.

For detailed information visit; www.ttmanto.com
www.terrathermmanto.com.tr

Thickness (cm)	Width x Length (cm)	Package (m^2)
3	60 x 120	3,60
4	60 x 120	2,88
5	60 x 120	2,16
6	60 x 120	2,16
7	60 x 120	1,44
8	60 x 120	1,44
9	60 x 120	1,44
10	60 x 120	1,44
12	60 x 120	0,72

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

İZOCAM®

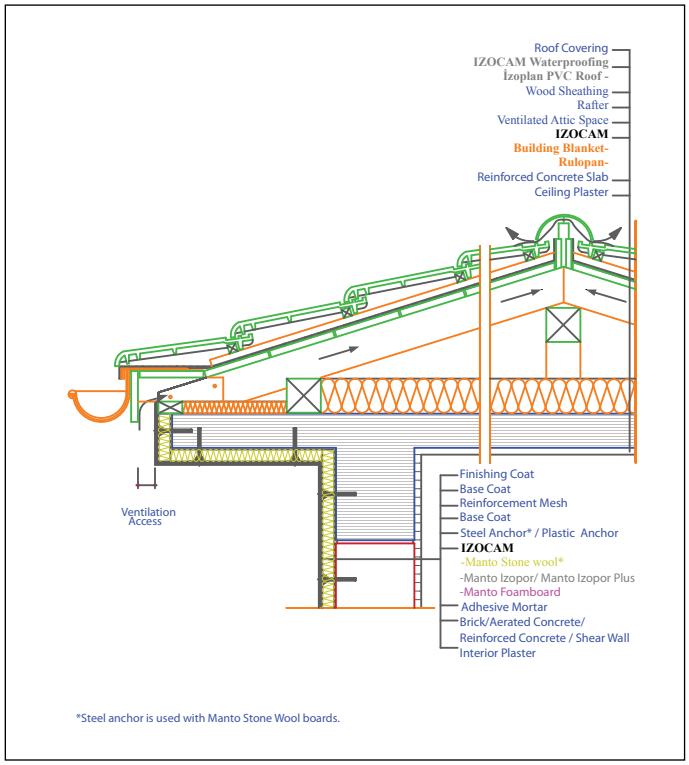
TECHNICAL DATA SHEET

İzocam Manto Stone Wool

Properties	Symbol	Unit	Description	Tolerance	Standard
Material	-	-	Stone Wool	-	TS EN 13162
Density	ρ	kg/m³	150	+/-7%	-
Width	W	mm	600	+/-1,5%	TS EN 822
Length	L	-	1200	+/-2%	TS EN 822
Thickness	t	mm	30 / 40 / 50 / 60 / 70 / 80 / 90 / 100 / 120	T5 (-1/+3)	TS EN 823
Facing	-	-	Unfaced	-	-
Reaction to fire	-	-	A1	-	TS EN 13501-1
Squareness	-	mm	< 6	-	TS EN 825
Flatness	-	mm/m	≤ 5	-	TS EN 824
Dimensional Stability	-	%	≤ 1	-	TS EN 1604
Declared Thermal Conductivity (10°C)	λ_D	W/mK	0,039	-	TS EN 13162
Thermal Resistance	R_D	m²K/W	0,75 / 1,00 / 1,25 / 1,50 / 1,75 / 2,05 / 2,30 / 2,55 / 3,05	-	TS EN 13162
Water Vapor Diffusion Resistance Coefficient	μ	-	1	-	TS EN 12086
Pulling Strength	-	kPa	≥ 15	-	TS EN 1607
Compressive Strength	σ	kPa	≥ 20 / ≥ 30 / ≥ 40		TS EN 826
Short Term Water Absorption	-	kg/m²	< 3 [WL(P) - permanent water-repellant]	-	TS EN 12087
Packaging Material	-	-	PE Film	-	-
Other Information	Manto Stone Wool insulation boards are manufactured regarding to the technical specifications of insulation boards stated in TS EN 13500 for “Mineral wool (stone wool) based external thermal insulation composite systems” and in compliance with TS 901-1 EN 13162 standard.				

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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İZOCAM

ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

EUCEB

TSE

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YALI STONE WOOL

Yali Stone Wool is an unfaced stone wool board produced in special size for siding systems. It is utilized for thermal insulation, sound insulation and fire safety.

Application

The boards are placed in between the plastic profiles and wood boards 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 stone wool materials. For that reason, there wouldn't 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 Stone wool boards can be fastened through squeezing. Since stone 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	5,76
6	40 x 120	5,76

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

TECHNICAL DATA SHEET

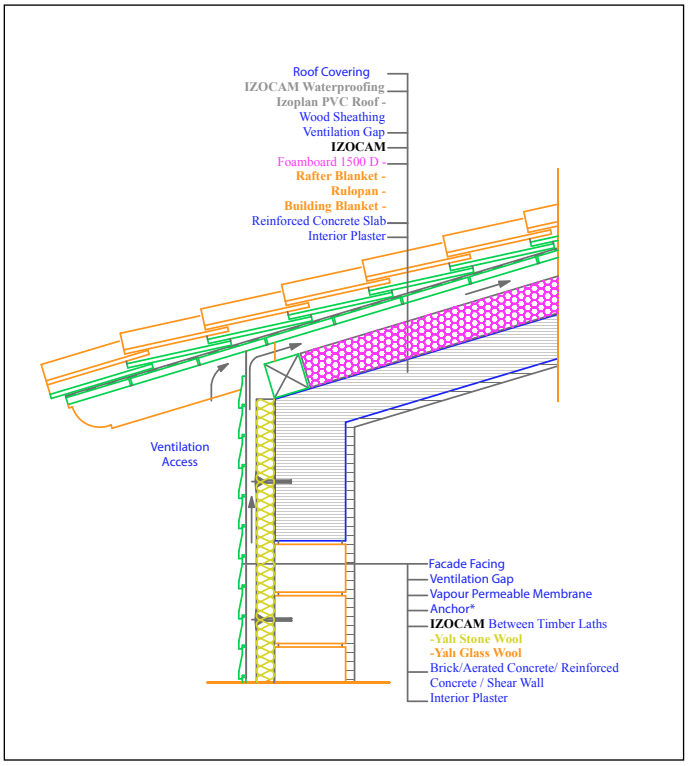
İzocam Yali Stone Wool

Properties	Symbol	Unit	Description				Tolerance	Standard
Material	-	-	Stone Wool				-	TS EN 13162
Density	ρ	kg/m^3	70				+/-10%	-
Width	W	mm	400				+/-1,5%	TS EN 822
Length	L	mm	1200				+/-2%	TS EN 822
Thickness	t	mm	30	40	50	60	-3 or -3 %, +5 or 5 % *	TS EN 823
Facing	-	-	Unfaced				-	-
Reaction to fire	-	-	A1				-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/mK	0,035				-	TS EN 13162
Thermal Resistance	R_D	m^2.K/W	0,85	1,10	1,40	1,70	-	TS EN 13162
Water Vapor Diffusion Resistance Coefficient	μ	-	1				-	TS EN 12086
Compressive Strength	σ	kPa	N.A.				-	TS EN 826
Short Term Water Absorption	-	kg/m^2	< 1				-	TS EN 1609
Long Term Water Absorption	-	(v/v) %	1,50	2,00	2,50	3,00	-	Manufacturer's Method
Packaging Material	-	-	PE Film				-	-

* 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.
- The packages should be put on the floor with extra care so the corners of the product especially is not damaged by a hit.
- Storage area should be protected against any wet threats such as rain, float, etc. Indoor spaces should be preferred.



ENTYYT2012/01

KALIBEL STONE WOOL

İzocam Kalibel is a composite product consisting of a stone wool board faced with gypsum board on 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 stone 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 stone wool board and gypsum board prevents the risk of condensation.

Thickness (cm)		Width x Length (cm)	Package (m^2)
Stone wool	Gypsum Board		
3	1,25	120 x 270	6.48
5	1,25	120 x 270	6.48
8	1,25	120 x 270	6.48

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

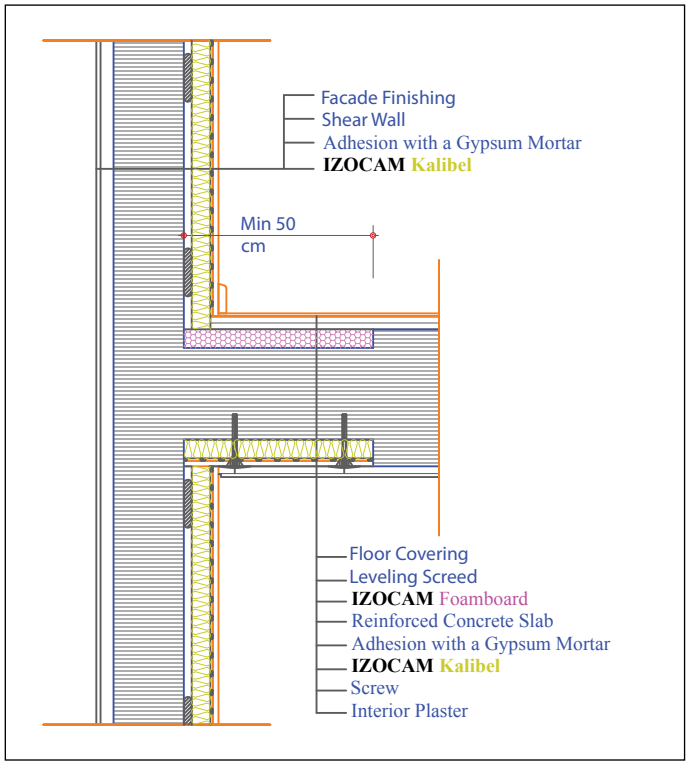
TECHNICAL DATA SHEET

İzocam Kalibel Stone Wool

Properties	Symbol	Unit	Description			Tolerance	Standard
Material	-	-	Stone Wool			-	-
Density	ρ	kg/m³	110			+/-10%	-
Width x Length	W x L	mm	1200 x 2700			+/-1,5% (W) +/-2% (L)	TS EN 822
Thickness	t	mm	30	50	80	-1, +5	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	0,034			-	DIN 4108
Thermal Resistance	R_D	m².K/W	0,85	1,45	2,35	-	-
Water Vapor Diffusion Resistance Coefficient	μ	-	1 (Unfaced Stone wool)			-	DIN 18165
Compressive Strength	σ	kPa	5	15	15		TS EN 826
Water Absorption	-	(v/v) %	1,50	2,50	4,00	-	ASTM C 272
Packaging Material	-	-	PE Film			-	-
Other Information	Kalibel is a composite board, formed with stone wool board, aluminium foil and gypsum board.						

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.



ENTYKB2012/01

STONE WOOL PARTITION WALL BOARD

Sound Insulation · Fire Safety · Thermal Insulation

It is a stone wool board used for fire safe thermal and sound insulation of lightweight partition walls, stairwells and elevator shafts, adjacent walls, inner surfaces of exterior walls.

Application

İzocam Stone Wool Partition Wall Board is placed into the timber or metal construction. It is used for thermal and sound insulation and fire safety especially when it is applied at the partition walls of the office buildings. Depending on the application space, gypsum boards are fastened on the side facing the interior or on both sides by profiles. It is recommended to apply rubber tapes (İzocamtape) to the construction especially for the sound insulation applications in order to avoid sound bridges.

Thickness (cm)	Width x Length (cm)	Package (m^2)
3	60 x 120	11,52
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
12	60 x 120	1.44

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

İZOCAM®

TECHNICAL DATA SHEET

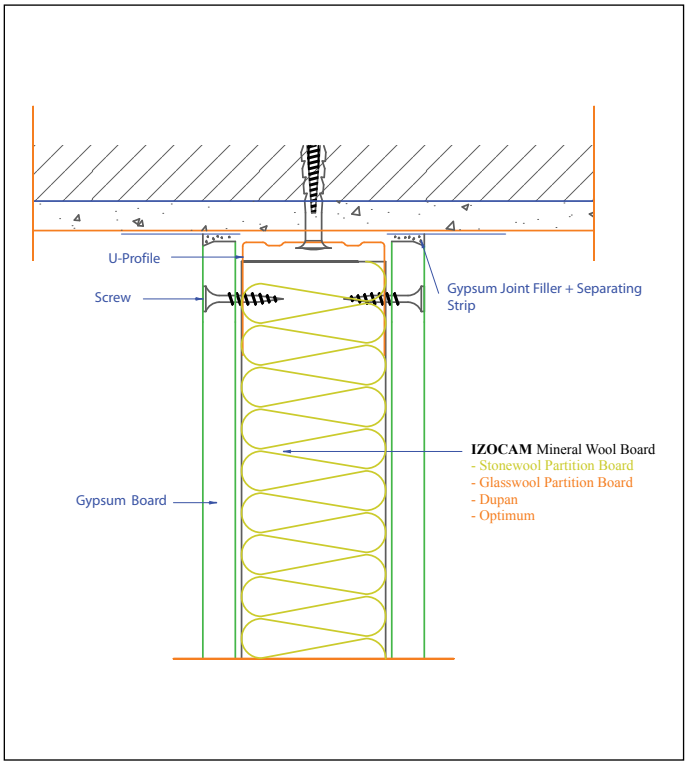
İzocam Stone Wool Partition Wall Board

Properties	Symbol	Unit	Description							Tolerance	Standard
Material	-	-	Stone Wool							-	TS EN 13162
Material Type	-	-	ABL				ABL - Eco				
Density	ρ	kg/m³	52				40			+/-10%	-
Width x Length	W x L	mm	600 x 1200							+/-1,5% (W) +/-2% (L)	TS EN 822
Thickness	t	mm	30	40	50	60	80	100	120	-3 or -3 %, +5 or 5 % *	TS EN 823
Facing	-	-	Unfaced							-	-
Reaction to fire	-	-	A1							-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/mK	0,035				0,038			-	TS EN 13162
Thermal Resistance ABL	R_D	m².K/W	0,85	1,10	1,40	1,70	2,25	2,85	3,40	-	TS EN 13162
Thermal Resistance ABL-Eko	R_D	m².K/W	0,85	1,05	1,30	1,55	2,10	2,60	3,15	-	TS EN 13162
Water Vapor Diffusion Resistance Coefficient	μ	-	1							-	TS EN 12086
Compressive Strength	σ	kPa	None							-	TS EN 826
Short Term Water Absorption	-	kg/m²	< 1							-	TS EN 1609
Long Term Water Absorption		(v/v) %	1,50	2,00	2,50	3,00	4,00	5,00	6,00	-	Manufacturer's Method
Packaging Material	-	-	PE Film							-	-
Other Information	Boards could be coated with yellow/black glass tissue and aluminium foil.										

* 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 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 be in packages (10 each) and maximum 6 packages can be superposed.
- 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.



ENTYABL2012/01

FLOATING FLOOR BOARD

Sound Insulation | Fire Safety | Thermal Insulation

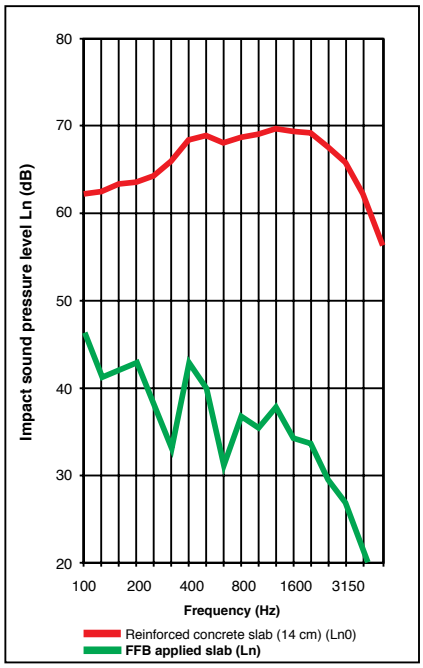
It is a stone wool board that is used for thermal, sound and vibration insulation of the floors on the grade, for the floors in between flats, under all kinds of the vibrating equipments.

Application

İzocam Floating Floor Board that is manufactured to be used under floating screeding. High compressive strength make them suitable to be used for thermal, sound and vibration insulation of floors under all types of live loads. Before the concrete floor on grade is laid, waterproofing against ground water and damp is applied for the floor above ground. Then floating floor boards are loosely laid over. Consequently, in order to prevent the spreading of vibrations caused by impacts on the floor covering through the walls, the strips cut from the boards with a thickness determined by the finished flooring height, are placed along the floor. A water impermeable membrane is laid over the boards before pouring the screed. Reinforced screed of 5 cm with minimum dosage (500) is applied on and then the application is completed with the desired floor covering.

Thickness (cm)	Width x Length (cm)	Package (m^2)
2,5 (2)*	60 x 120	7,20
3 (2,5)*	60 x 120	5,76
3,5 (3)*	60 x 120	5,04

* Values in parenthesis are showing the thickness of the insulation board which exposed to load of reinforced lever.



Ln0,w = 74 dB
Ln,w = 40 dB
ΔLw = 34 dB

• Rating according to ISO 717-2 based on laboratory measurements with artificial sound source.

- *High thermal insulation*
- *Fire safety*
- *Sound and vibration insulation*
- *Easy to apply*
- *Available in different sizes*

İZOCAM®

TECHNICAL DATA SHEET

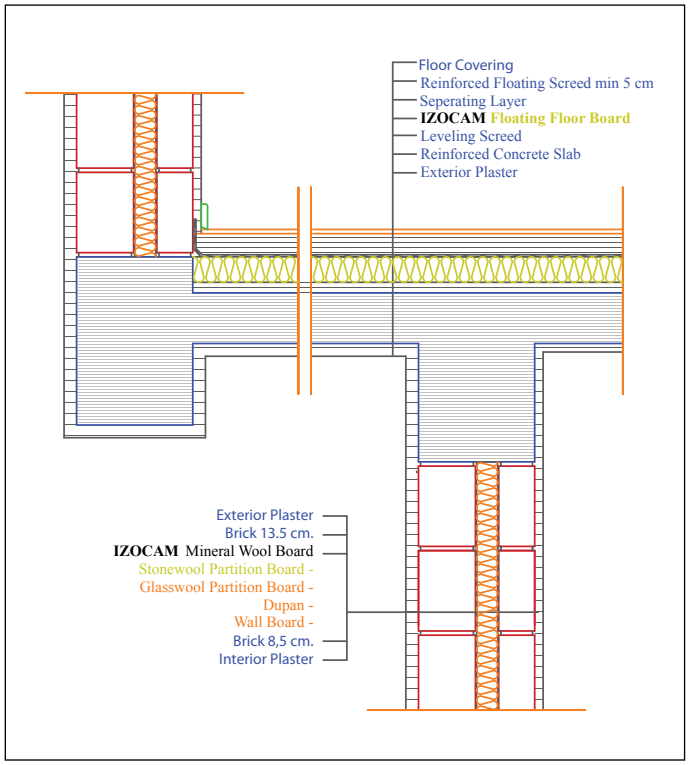
İzocam Floating Floor Board

Properties	Symbol	Unit	Description			Tolerance	Standard
Material	-	-	Stone Wool			-	TS EN 13162
Density	ρ	kg/m³	110			+/-10%	-
Width	W	mm	600			+/-1,5%	TS EN 822
Length	L	mm	1200			+/-2%	TS EN 822
Thickness	t	mm	25	30	35	"-3 or -3 %, +5 or 5 % *	TS EN 823
Facing	-	-	Unfaced				-
Reaction to fire	-	-	A1			-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/mK	0,035			-	TS EN 13162
Thermal Resistance	R_D	m².K/W	0,70	0,85	1,00	-	TS EN 13162
Water Vapor Diffusion Resistance Coefficient	μ	-	1			-	TS EN 12086
Compressive Strength	σ	kPa	5				TS EN 826
Short Term Water Absorption	WS	kg/m²	< 1			-	TS EN 1609
Long Term Water Absorption	-	(v/v) %	1,25	1,50	1,75		Manufacturer's Method
Packaging Material	-	-	PE Film			-	-
Other Information	Boards could be faced with yellow/black glass tissue and aluminium foil.						

* 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.



ENTYYDL2012/01

INDUSTRIAL BOARD

Sound Insulation · Fire Safety · Thermal Insulation

It is a stone wool board that is used for thermal insulation and fire safety of industrial plants, process equipments, steel construction buildings.

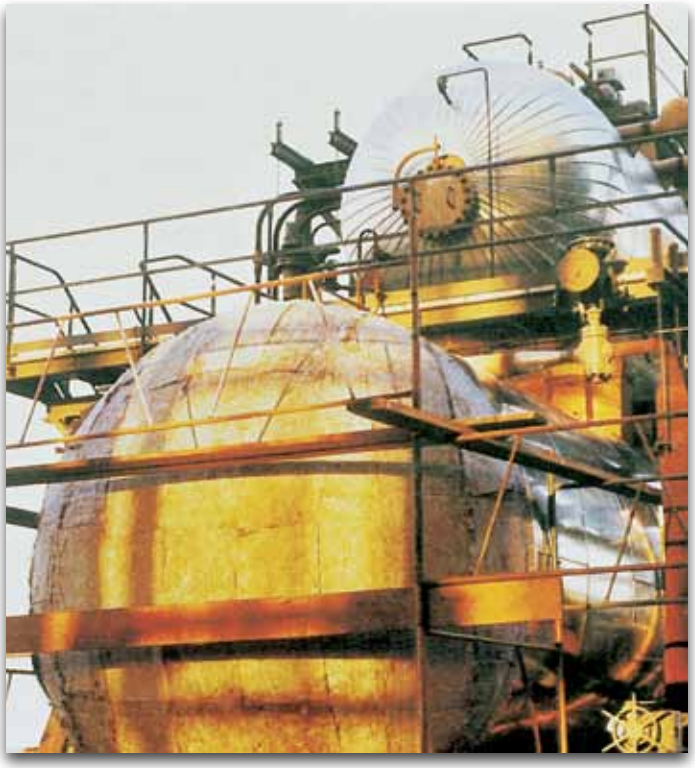
Application

Noncombustibility of Stone Wool Industrial Boards enables them to be used for thermal, sound and fire insulation of high temperatures. The boards are fastened to the smooth application surfaces by fastening rods. Then they are either covered with sheet metal cladding or they are laid in the structural frame formed on the surface. The boards can be used in prefabricated panel applications as well. There are two different types of industrial boards available as SL1 and SL2 with different technical properties.

	Thickness (cm)	Width x Length (cm)	Package (m^2)
SL 1	2,5	60 x 120	11,52
	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
	12	60 x 120	2,16

	Thickness (cm)	Width x Length (cm)	Package (m^2)
SL 2	2,5	60 x 120	7,20
	4	60 x 120	4,32
	5	60 x 120	3,60
	6	60 x 120	2,88
	8	60 x 120	2,16
	10	60 x 120	2,16
	12	60 x 120	2,16

		Density (kg/m^3)	SL 1	SL 2
			70	110
Declared Thermal Conductivity (W/mk)	Avarage Temperature (°C)	10	0,033	0,033
		50	0,039	0,037
		100	0,048	0,045
		150	0,059	0,053
		200	0,072	0,062
		250	0,087	0,073
		300	0,103	0,085
		350	0,122	0,097
		400	0,140	0,111



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

IZOCAM®

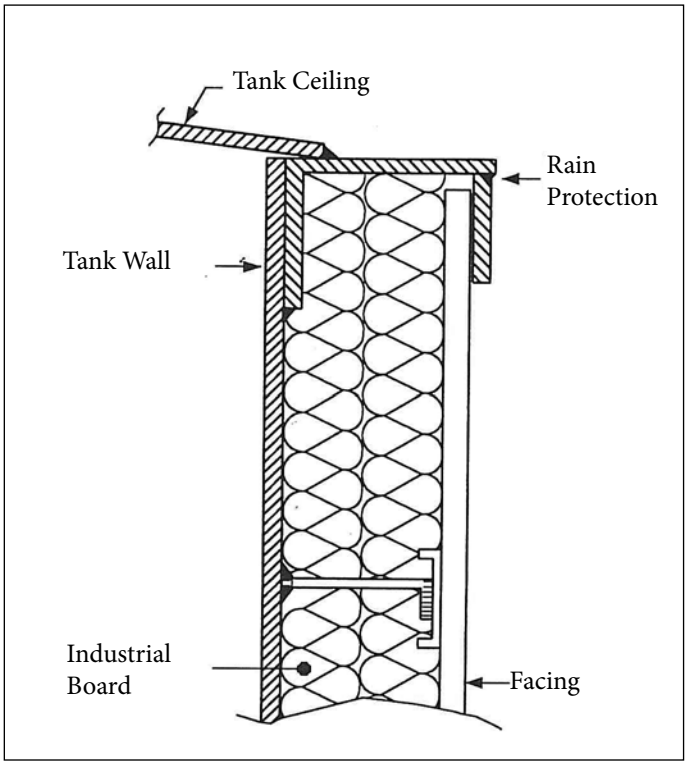
TECHNICAL DATA SHEET

İzocam Industrial Board

Properties	Symbol	Unit	Description							Tolerance	Standard
Material	-	-	Stone Wool							-	TS EN 14303
Material Type	-	-	SL1			SL2				-	-
Density	ρ	kg/m³	70			110				+/-10%	-
Width x Length	W x L	mm	600 x 1200							+/-2%	TS EN 822
Thickness	t	mm	25	40	50	60	80	100	120	-1, +5	TS EN 823
Facing	-	-	Unfaced / Yellow Glass Tissue / Black Glass Tissue / Al-foil							-	-
Reaction to fire	-	-	A1							-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,034							-	TS EN 12667 TS EN 12939
Thermal Resistance	R	m².K/W	0,70	1,15	1,45	1,75	2,35	2,90	3,50	-	TS EN 14303
Max. Service Temperature	-	°C	620							-	TS EN 14706
Water Vapor Diffusion Resistance Coefficient	μ	-	1							-	DIN 18165
Compressive Strength	σ	kPa	N.A.							-	-
Water Absorption	-	(v/v) %	N.A.							-	ASTM C 272
Packaging Material	-	-	PE Film							-	-

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.



ENTYSL2012/01

INDUSTRIAL BLANKET

Sound Insulation · Fire Safety · Thermal Insulation

It is a stone wool blanket that is used for thermal insulation and fire safety of industrial plants, process equipments, large diameter pipes.

Application

Noncombustibility of Stone Wool Industrial Blankets enables them to be used for thermal, sound and fire insulation of very high temperatures. The blankets are cut to size and wrapped around the surface to be insulated. The joints are laced with galvanized wire by passing it through the eyes of the wiremesh. Care should be taken to ensure that the joints fit properly and no gap is left at the joints. During the application on large surfaces, the blankets should be impaled over welded pins of 5-6 in number per square meter. The blankets are held in position by placing retaining washers over the pins. These pins also work as spacers for the insulation between the sheet metal cover and the insulated surface.

There are three different types of industrial blankets available as 650, 700 and 750 with different technical properties.

	Thickness (cm)	Width x Length (cm)	Package (m^2)
650 - 700	3	100 x 800	8
	4	100 x 800	8
	5	100 x 500	5
	6	100 x 500	5
	8	100 x 300	3
	10	100 x 300	3
	12	100 x 300	3

	Thickness (cm)	Width x Length (cm)	Package (m^2)
750	3	100 x 800	8
	4	100 x 800	8
	5	100 x 500	5
	6	100 x 500	5
	8	100 x 300	3
	10	100 x 300	3

Density (kg/m^3)			650	700	750
			80	90	125
Declared Thermal Conductivity (W/mk)	Avarage Temperature (°C)	10	0,033	0,033	0,033
		50	0,038	0,038	0,037
		100	0,047	0,046	0,044
		150	0,058	0,057	0,052
		200	0,069	0,066	0,061
		250	0,083	0,079	0,071
		300	0,098	0,093	0,082
		350	0,115	0,108	0,094
		400	0,132	0,124	0,106

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

IZOCAM®

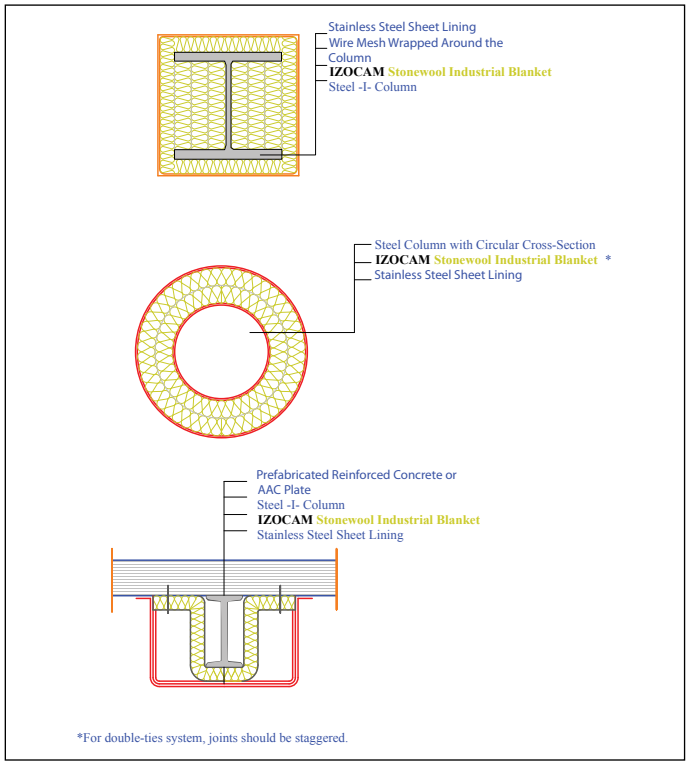
TECHNICAL DATA SHEET

İzocam Industrial Blanket

Properties	Symbol	Unit	Description	Tolerance	Standard
Material Type			650 / 700 / 750	-	-
Material	-	-	Stone Wool	-	TS EN 14303
Density	ρ	kg/m³	80 / 90 / 125	+/-10%	-
Width	W	mm	1000	+/-2%	TS EN 822
Length	L	mm	8000 / 5000 / 3000	+/-2%	TS EN 822
Thickness	t	mm	30 / 40 / 50 / 60 / 80 / 100 / 120	-1, +5	TS EN 823
Facing	-	-	Stitched with Galvanized Wire	-	-
Reaction to fire	-	-	A1	-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,034 / 0,035	-	TS EN 12667 TS EN 12939
Thermal Resistance	R	m².K/W	0,90 / 1,20 / 1,50 / 1,80 / 2,40 / 3,00 / 3,60	-	TS EN 14303
Max. Service Temperature	-	°C	620	-	TS EN 14706
Water Vapor Diffusion Resistance Coefficient	μ	-	1	-	DIN 18165
Compressive Strength	σ	kPa	N.A.	-	-
Water Absorption	-	(v/v) %	1,50 / 2,00 / 2,50 / 3,00 / 4,00 / 5,00 / 6,00	-	ASTM C 272
Packaging Material	-	-	PE Film	-	-
Other Information	Type 750 blankets can be manufactured up to 10 cm thickness.				

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 be in packages (10 each) and maximum 6 packages can be superposed.
- 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.



ENTYSS2012/01

STONE WOOL PREFABRICATED PIPE

Sound Insulation · Fire Safety · Thermal Insulation

It is a pipe unfaced or faced with aluminium foil and manufactured out of stone wool with high unit weight. It is used for the thermal insulation of industrial pipes of temparatures over 250 ˚C, for vibration and sound insulation of pressurized pipes and against frost in pipes.

Application

Appropriate Stone 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 Line Diameter		Insulation 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	+	+	+	+	+		
2	60	+	+	+	+	+	+	
2 1/2	76	+	+	+	+	+	+	+
3	89	+	+	+	+	+	+	+
4	114	+	+	+	+	+	+	+
5	140		+	+	+	+	+	+
6	169		+	+	+	+	+	+
8	219		+	+	+	+	+	+
10	273		+	+	+	+	+	
12	324		+	+	+	+		
14	356		+	+	+			

Dark colored cells are belong to Group 1.

Density (kg/m³)			Group 1 (100)	Group 2 (100<)
Declared Thermal Conductivity (W/mk)	Avarage Temperature (°C)	10	0,033	0,033
		50	0,037	0,037
		100	0,045	0,044
		150	0,054	0,052
		200	0,063	0,061
		250	0,075	0,071
		300	0,088	0,082
		350	0,101	0,094
		400	0,115	0,106

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

IZOCAM®

TECHNICAL DATA SHEET

İzocam Stone Wool Prefabricated Pipe

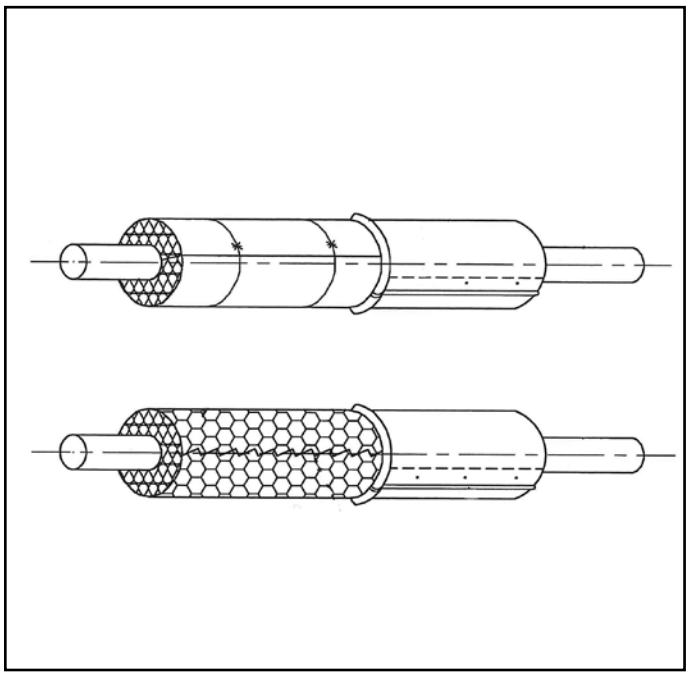
Properties	Symbol	Unit	Description		Tolerance	Standard
Material	-	-	Stone Wool		-	TS EN 14303
Density	-	kg/m^3	see the table		± 15 mm	TS EN 14303
Thickness	t	mm	see the table		+3mm or +6% (which is greater)	TS EN 823
Length	L	mm	1200		± 5 mm	TS EN 822
Inner Diameter	Ø	mm	see the table		+4mm, -1mm or +2 %, -1 % (which is greater)	TS EN 13467
Squareness	-	mm	-		outer diameter +2 % or +4mm (which is greater)	TS EN 13467
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,035 *		-	TS EN 12667
Max. Service Temperature	-	°C	580		-	TS EN 12667
Water Absorption	-	%	max. 1 kg/m^2		-	TS EN 13472
Facing	-	-	Unfaced	Al-foil	-	-
Reaction to fire	-	-	$A1_L$	$A2_L$-s1,d0	-	TS EN 13501-1
Packaging Material	-	-	PE Bag - Carton Box		-	-

Diameter		Insulation Thickness (mm)													
inch	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.
1/4	15	145	547	135	687	125	1037	100	1225	-	-	-	-	-	-
1/2	21	140	627	130	772	120	1131	100	1367	100	1866	-	-	-	-
3/4	27	140	699	130	853	120	1230	100	1470	100	1991	-	-	-	-
1	33	140	792	130	956	120	1357	100	1602	100	2149	-	-	-	-
1 1/4	42	140	904	125	1039	110	1385	100	1762	100	2341	-	-	-	-
1 1/2	48	140	983	125	1124	110	1485	100	1876	100	2477	-	-	-	-
2	60	130	1060	110	1138	100	1531	100	2102	100	2748	100	4268	-	-
2 1/2	76	120	1159	100	1216	100	1772	100	2403	100	3110	100	4750	100	6692
3	89	120	1306	100	1363	100	1968	100	2648	100	3404	100	5142	100	7182
4	114	105	1395	100	1651	100	2352	100	3129	100	3981	100	5911	100	8143
5	140	-	-	100	1927	100	2720	100	3589	100	4533	100	6647	100	9063
6	169	-	-	100	2252	100	3153	100	4130	100	5182	100	7513	100	10145
8	219	-	-	100	2816	100	3906	100	5071	100	6311	100	9018	100	12026
10	273	-	-	100	3427	100	4720	100	6088	100	7532	100	10646	-	-
12	324	-	-	100	4015	100	5504	100	7069	100	8708	-	-	-	-
14	356	-	-	100	4366	100	5972	100	7653	-	-	-	-	-	-

* The value appropriate for the 120 kg/m^3 avarage density and 55 mm avarage thickness.

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 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.



ENTYPB2012/01

LOOSE STONE WOOL

İzocam Loose Stone Wool is manufactured from rock fibers which are free from binders and other impurities. It is used for thermal and sound insulation of amorphous surfaces with high temperatures, double-walled cups, laboratory equipments and household electric appliances.

Application

It is applied to the amorphous spaces where stone wool industrial blankets and boards cannot be used, by method of stuffing. It prevents thermal losses resulting from the gaps which couldn't be filled with other insulation materials. It can be used for fire insulation purpose of the electrical cables and installments as well. The surface to be insulated should be filled completely and stuffed intensity of the material should be approximately 80 kg/m^3. They are available in 20 kg bags.

- *Thermal insulation*
- *Sound insulation*
- *Fire safety*
- *Applicable to amorphous spaces by stuffing*

TECHNICAL DATA SHEET

İzocam Loose Stone Wool

Properties	Symbol	Unit	Description	Tolerance	Standard
Material	-	-	Stone Wool	-	TS EN 14303
Weight	-	kg	20	-1, +2 kg	-
Width	W	mm	-	-	-
Length	L	mm	-	-	-
Thickness	t	mm	-	-	-
Facing	-	-	-	-	-
Reaction to fire	-	-	A1	-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,039	-	TS EN 12667 TS EN 12939
Max. Service Temperature	-	°C	650	-	TS EN 14706
Water Vapor Diffusion Resistance Coefficient	μ	-	N.A.	-	DIN 18165
Compressive Strength	σ	kPa	N.A.	-	-
Water Absorption	-	(v/v) %	-	-	ASTM C 272
Packaging Material	-	-	PE Film	-	-
Other Information	Formaldehyde is not used in loose wool production process.				

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 10 packages, during storing maximum 6 packages should be superposed.
- Products should not be put into upright position during shipping and storing.
- Storing should be carried out on pallets.
- Products should not be pulled by their package.
- Packages should not be stepped on and should not be used as steps.
- Packages should not be unloaded by pushing or throwing from the truck.

ENTYDK2012/01

SHIP BOARD

It is a stone wool board used in ship and sea construction, cofferdam walls, fire partitions, fire doors and ship interior installations for sound insulation and fire safety purposes.

Application

Noncombustibility of Stone Wool Ship Boards enables them to be used for thermal, sound and fire insulation of very high temperatures. The boards are fastened to the smooth application surfaces by fastening rods. Then they are either covered with sheet metal cladding or they are laid in the structural frame formed on the surface.

There are 4 different board types available as Marine Firebatts 45 (MF 45), Marine Firebatts 110 (MF 110), Marine Firebatts 140 (MF 140), Marine Slab 150 (MS 150). MF 45 is used in ship interior installations, MF 110 and MF 140 are used in bulkhead applications, MS 150 is used in floating floor applications of ships.

	Thickness (cm)	Width x Length (cm)	Package (m^2)
MF 45	3	60 x 120	11,52
	4	60 x 120	7,20
	5	60 x 120	5,76
	6	60 x 120	5,04
MF 110	3	60 x 120	7,20
	4	60 x 120	4,32
	5	60 x 120	3,60
	6	60 x 120	2,88
MF 140	3	60 x 100	4,80
MS 150	3	60 x 120	5,76
	4	60 x 120	4,32
	5	60 x 120	3,60
	6	60 x 120	3,60

Density (kg/m^3)		MF 45	MF 110	MF 140	MS 150
		45	110	140	150
Declared Thermal Conductivity (W/mk)	Avarage Temperature (°C) 10	0,035	0,033	0,033	0,033
	50	0,042	0,037	0,038	0,038
	100	0,053	0,045	0,044	0,044
	150	0,068	0,053	0,052	0,051
	200	0,086	0,062	0,060	0,059
	250	0,107	0,073	0,069	0,068
	300	0,133	0,085	0,079	0,077
	350	-	0,097	0,090	0,087
	400	-	0,111	0,101	0,098

- *High thermal insulation*
- *Fire safety*
- *Sound insulation*
- *Tested according to IMO 754 A18.*

IZOCAM

TECHNICAL DATA SHEET

İzocam Ship Board

Properties	Symbol	Unit	Description				Tolerance	Standard
Material	-	-	Stone Wool				-	-
Material Type	-	-	MF 45	MF 110	MF 140	MS 150	-	-
Density	ρ	kg/m^3	45	110	140	150	+/-10%	-
Width x Length	W x L	mm	600 x 1200				+/-2%	TS EN 822
Thickness	t	mm	30	40	50	60	-1, +5	TS EN 823
Facing	-	-	Unfaced - Al-foil				-	-
Reaction to fire	-	-	A1	A60			-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,036	0,035	0,037	0,038	-	TS EN 12667 TS EN 12939
Max. Service Temperature	-	°C	340	650			-	TS EN 14706
Water Vapor Diffusion Resistance Coefficient	μ	-	1				-	DIN 52615
Water Absorption	-	(v/v) %	1,5	2	2,5	3	-	ASTM C 272
Packaging Material	-	-	PE Film				-	-
Other Information	MF 45 is manufactured with aluminium foil face. MF 140 is manufactured in 30 mm thickness. Water absorption feature is not demanded at MF 110, MF 140, MS 150 boards. Ship board products have “EC Type Non-Combustible Material” certification.							

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.
- 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.

ENTYGL2012/01

İZOCAM®

ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

EUCEB

SHIP BLANKET

Sound Insulation · Fire Safety · Thermal Insulation

It is a stone wool blanket used in ship and sea construction, cofferdam walls, fire partitions, fire doors and ship interior installations for sound insulation and fire safety purposes.

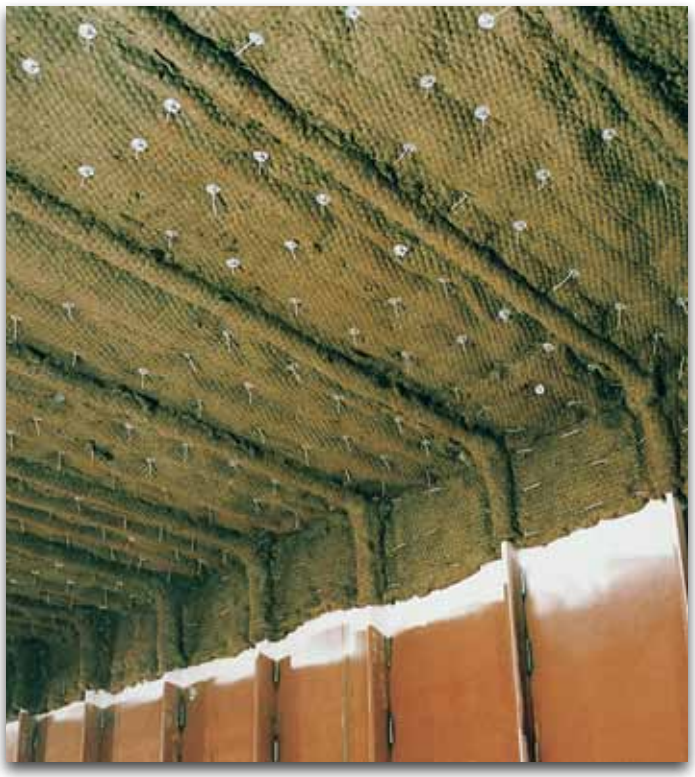
Application

Noncombustibility of Stone Wool Ship Blankets enables them to be used for thermal, sound and fire insulation of very high temperatures. The blankets are cut to size and wrapped around the surface to be insulated. The joints are laced with galvanized wire by passing it through the eyes of the wiremesh. Care should be taken to ensure that the joints fit properly and no gap is left at the joints. During the application on large surfaces, the blankets should be impaled over welded pins of 5-6 in number per square meter. The blankets are held in position by placing retaining washers over the pins. These pins also work as spacers for the insulation between the sheet metal cover and the insulated surface.

There are 3 different blanket types available as Marine Firebatts 32 (MF 32), Marine Wired Mat 80 (MWM 80), Marine Wired Mat 125 (MWM 125).

	Thickness (cm)	Width x Length (cm)	Package (m^2)
MF 32	5	120 x 500	6,00
	6	120 x 500	6,00
	8	120 x 500	3,60
	10	120 x 500	3,60
MWM 80	3	100 x 800	8,00
	4	100 x 800	8,00
	5	100 x 500	5,00
	6	100 x 500	5,00
	8	100 x 300	3,00
	10	100 x 300	3,00
MWM 125	3	100 x 800	8,00
	4	100 x 800	8,00
	5	100 x 500	5,00
	6	100 x 500	5,00

Density (kg/m^3)		MF 32	MWM 80	MWM 125
		32	80	125
Declared Thermal Conductivity (W/mk)	Avarage Temperature (°C) 10	0,038	0,033	0,033
	50	0,045	0,038	0,038
	100	0,059	0,047	0,044
	150	0,075	0,058	0,052
	200	0,098	0,069	0,061
	250	0,0125	0,083	0,071
	300	0,158	0,098	0,082
	350	-	0,115	0,094
	400	-	0,132	0,106



- *High thermal insulation*
- *Tested according to IMO 754 A18*
- *Fire safety*

IZOCAM®

TECHNICAL DATA SHEET

İzocam Ship Blanket

Properties	Symbol	Unit	Description						Tolerance	Standard
Material	-	-	Stone Wool						-	-
Material Type	-	-	MF32		MWM80		MWM125		-	-
Density	ρ	kg/m³	32		60		125		+/-10%	-
Facing	-	-	Al-foil		Rabitz Tel				-	-
Width	W	mm	1200		1000				+/-2%	TS EN 822
Length	L	mm	3000 - 8000						+/-2%	TS EN 822
Thickness	t	mm	30	40	50	60	80	100	-1, +5	TS EN 823
Reaction to fire	-	-	A1						-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,037		0,033		0,037		-	TS EN 12667 TS EN 12939
Max. Service Temperature	-	°C	450		540		650		-	TS EN 14706
Water Vapor Diffusion Resistance Coefficient	μ	-	1						-	DIN 52615
Compressive Strength	σ	kPa	N.A.						-	-
Water Absorption	-	(v/v) %	1,50	2,00	2,50	3,00	4,00	5,00	-	ASTM C 272
Packaging Material	-	-	PE Film						-	-
Other Information	Aluminium foil faced blankets can be manufactured, if required. MF 32 and MWM 80 ship blankets have “EC Type Non-Combustible Materials” certificate.									

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.

ENTYGS2012/01

İZOCAM®

ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

EUCEB

SOLAR BOARDS
35T - 40T

It is an unfaced stone wool board, manufactured in two different types as Solar 35T and Solar 40T which are certified by SPF for outgassing. It is used for the thermal insulation of solar collectors.

Application

Solar boards 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 35T and Solar 40T 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 170	14,96
4	110 x 170	11,22
5	110 x 170	9,35
3	110 x 213	18,74
4	110 x 213	14,06
5	110 x 213	11,72

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

TECHNICAL DATA SHEET

İzocam Solar Boards 35T - 40T

Properties	Symbol	Unit	Description			Tolerance	Standard
Material Type	-	-	35T	40T			
Material	-	-	Stone Wool			-	-
Density	ρ	kg/m^3	60	35		-0 / +6	-
Width *	W	mm	1100			+/-1,5%	TS EN 822
Length *	L	mm	1700 and 2130			+/-2%	TS EN 822
Thickness	t	mm	30	40	50	-1 / +3 (T5)	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	0,039		-	TS EN 12667 TS EN 12936
Max. Service Temperature	-	°C	540	340		-	TS EN 14706
Water Vapor Diffusion Resistance Coefficient **	μ	-	1			-	DIN 52615
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 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 be in packages (10 each) and maximum 6 packages can be superposed.
- 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.

ENTYSOL2012/01

PANEL BOARD

Sound Insulation | Fire Safety | Thermal Insulation

It is a stone wool board manufactured for thermal insulation, sound insulation and fire safety of sandwich panels.

Application

Since it is supplied to the firms producing sandwich roofs and facade panels, 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)
75	1200 x 2000	67,20
80	1200 x 2000	60,00
85	1200 x 2000	67,20
100	1000 x 2000	52,80

- *Fire safety*
- *Thermal insulation*
- *Sound insulation*
- *Available in different sizes*

IZOCAM®

TECHNICAL DATA SHEET

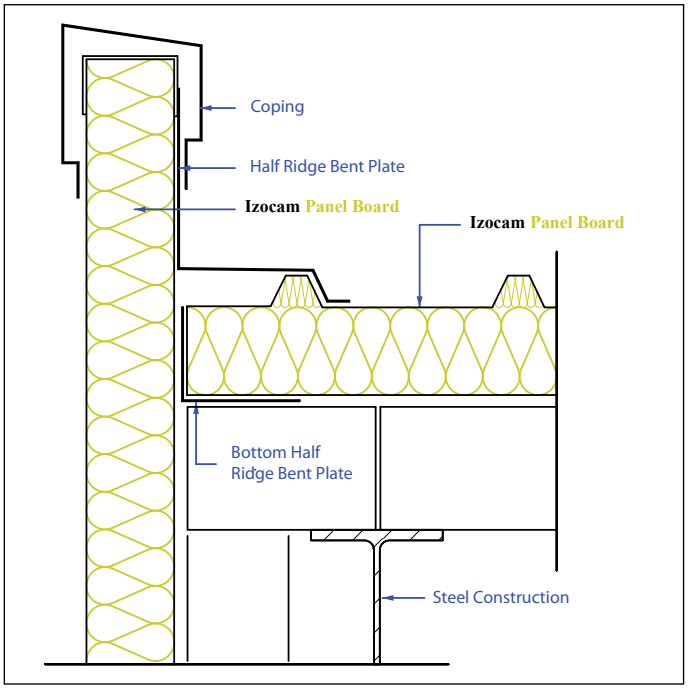
İzocam Panel Board

Properties	Symbol	Unit	Description	Tolerance	Standard
Material	-	-	Stone Wool	-	EN 13162
Density	ρ	kg/m³	90 - 120	+/-10%	-
Width	W	mm	1000 - 1200	+/-2%	TS EN 822
Length	L	mm	2000	+/-2%	TS EN 822
Thickness	t	mm	50 - 100	-2, +1 *	TS EN 823
Facing	-	-	Unfaced	-	-
Reaction to fire	-	-	A1	-	TS EN 13501-1
Thermal Conductivity (Average of measur.) (10 °C)	λ_{mean}	W/m.K	0,033	-	TS EN 12667 TS EN 12939
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,035	-	TS EN 13162
Max. Service Temperature	-	°C	600	-	TS EN 14706
Water Vapor Diffusion Resistance Coefficient	μ	-	1	-	TS EN 12086
Compressive Strength(width side)	σ	kPa	≥ 50 / ≥ 60 / ≥ 75	-	TS EN 826
Tensile Strength (width side)	σ	kPa	≥ 100	-	TS EN 1607
Water Repellency	-	yes/no	yes	-	Manufacturer's Method
Water Absorption	-	(v/v) %	3,90 / 5,00 / 5,00 / 3,90 / 4,20 / 4,25	-	ASTM C 272
Krimping	-	yes/no	no	-	-
Packaging Material	-	-	PE	-	-

* Thickness limits has been varying by requirement.

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors if the weather is rainy.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Storing should be carried out by using pallets. Damaged or deformed palettes should not be used.
- Products should not be superposed with pallets.
- 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.



ENTYPL2012/01

OVEN BOARD

It is a stone wool board which is used in oven production for thermal insulation purposes.

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. It can be manufactured in thicknesses between 13 to 40 mm with densities between 40 to 110 mm.

Thickness (mm)	Width x Length (mm)	Package (m^2)
20	400 x 1600	23,04
30	400 x 1600	15,36
40	400 x 1600	11,52

- *Thermal insulation*
- *Easy to apply*
- *Available in different sizes*
- *Lightweight*

IZOCAM

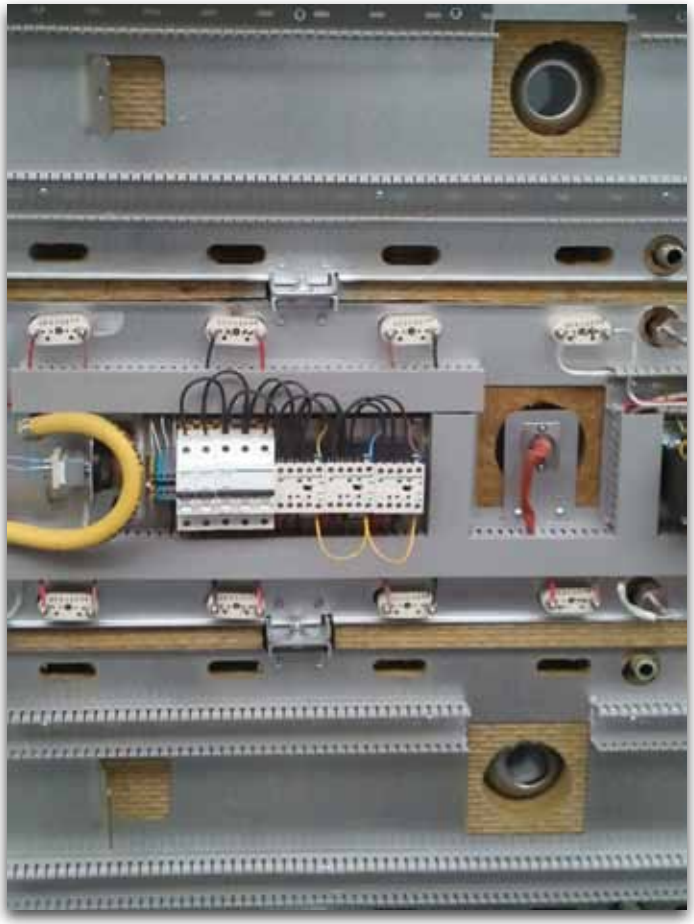
TECHNICAL DATA SHEET

İzocam Oven Board

Properties	Symbol	Unit	Description			Tolerance	Standard
Material	-	-	Stone Wool			-	-
Density	ρ	kg/m^3	40			+/-10%	-
Width	W	mm	400 - 600			+/-2%	TS EN 822
Length	L	mm	1200 - 1800			+/-2%	TS EN 822
Thickness	t	mm	20	30	40	-1, +5	TS EN 823
Facing	-	-	Unfaced / Al-foil			-	-
Reaction to fire	-	-	A1			-	TS EN 13501-1
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,036			-	TS EN 12667 TS EN 12939
Thermal Resistance	R_D	m^2.K/W	0,55	0,80	1,10	-	-
Max. Service Temperature	-	°C	350			-	TS EN 14706
Water Vapor Diffusion Resistance Coefficient	μ	-	1			-	DIN 18165
Compressive Strength	σ	kPa	N.A.			-	-
Water Absorption	-	(v/v) %	N.A.			-	ASTM C 272
Packaging Material	-	-	PE Film			-	-
Other Information	Maximum service temperature on the side faced with glass tissue is 200 °C.						

Safety Reminders for Loading, Unloading, Shipping and Storing

- These operations should be done indoors if the weather is rainy.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Storing should be carried out by using pallets. Damaged or deformed palettes should not be used.
- Products should not be superposed with pallets.
- 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.



ENTYFL2012/01

İZOCAM®

ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

EUCEB

FIRE DOOR BOARD

It is a special stone wool board which fulfils minimum fire resistance of EI 60. It is used in fire door production.

Application

Since it is supplied to the firms producing fire doors, it is applied according to the details which the customer provides. It should be applied to the door as one piece with respect to the fire resistance time.

Thickness (mm)	Width x Length (mm)	Package (m^2)
60	950 x 2100	63,84

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

TECHNICAL DATA SHEET

İzocam Fire Door Board

Properties	Symbol	Unit	Description	Tolerance	Standard
Material	-	-	Stone Wool	-	-
Density	ρ	kg/m³	150	+/-10%	-
Width	W	mm	950	+/-1,5%	TS EN 822
Length	L	mm	2100	+/-2%	TS EN 822
Thickness	t	mm	60	-3 or -3 % +5 or 5 % *	TS EN 823
Facing	-	-	Unfaced	-	-
Reaction to fire	-	-	A1	-	TS EN 13501-1
Thermal Conductivity (Average of measur.) (10°C)	λ_{mean}	W/mK	0,037		TS EN 12667 TS EN 12939
Declared Thermal Conductivity (10 °C)	λ_D	W/m.K	0,039	-	TS EN 13162
Thermal Resistance	R_D	m².K/W	1,50	-	TS EN 13162
Thermal Conductivity (Average of measur.) (50 °C)	λ_{mean}	W/m.K	0,046	-	TS EN 12667
Thermal Conductivity (Average of measur.) (100 °C)	λ_{mean}	W/m.K	0,054	-	TS EN 12667
Thermal Conductivity (Average of measur.) (200 °C)	λ_{mean}	W/m.K	0,074	-	TS EN 12667
Thermal Conductivity (Average of measur.) (300 °C)	λ_{mean}	W/m.K	0,096	-	TS EN 12667
Thermal Conductivity (Average of measur.) (400 °C)	λ_{mean}	W/m.K	0,120	-	TS EN 12667
Thermal Conductivity (Average of measur.) (500 °C)	λ_{mean}	W/m.K	0,155	-	TS EN 12667
Thermal Conductivity (Average of measur.) (600 °C)	λ_{mean}	W/m.K	0,194	-	TS EN 12667
Max. Service Temperature	-	°C	650	-	TS EN 14706
Water Vapor Diffusion Resistance Coefficient	μ	-	1	-	TS EN 12086
Compressive Strength	σ	kPa	N.A.	-	TS EN 826
Short Term Water Absorption by Partial Immersion	-	kg/m²	< 1	-	TS EN 1609
Long Term Water Absorption by Total Immersion	-	(v/v) %	3,0	-	Manufacturer's Method
Packaging Material	-	-	PE Film	-	-

* 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.
- Products should be wrapped by a waterproof cover even if the shipping distance is short.
- Storing should be carried out by using pallets. Damaged or deformed palettes should not be used.
- Products should not be superposed with pallets.
- 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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ZERO GLOBAL WARMING POTENTIAL

ZERO OZONE DEPLETION POTENTIAL

EUCEB