



practical insulation

optima | smart

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optima | smart

izocam introduces the easy-to-install master-friendly "Optima Smart" which takes the **form of a board when opened** and **packaged in rolls**. It is designed as a **"ready cut" material** in various widths taking into consideration the width between the studs according to the place of use. Thanks to its cut-to-length feature, it provides **uninterrupted insulation** on the walls. It is used on partition walls, adjacent walls, and inner surfaces of the exterior walls to ensure sound insulation, thermal insulation, and fire safety. Optima Smart, which can be applied practically is a "Master-Friendly" special insulation material that is applied together with channels, studs, fasteners, and accessories.

Advantages

- Practical
- Time saving
- Seamless insulation
- Ease of transportation
- Space-saving storage
- Flexible size
- Lightweight
- Easy to cut
- Harmless
- Convenient handling

PERFORMANCE

Thermal Insulation

Duly application of insulation materials to buildings, roofs, walls, and floors leads to a reduction in the amount of energy consumed for heating and cooling purposes, creates a healthy and comfortable environment, and prevents the corrosion of building components as a result of condensation.

izocam Optima Smart can be used on the walls next to an unheated space or to ensure thermal comfort on the adjacent walls. With its high thermal insulation properties, it protects your environment from heat in summer and cold in winter, leaving you with the desired indoor temperature and ensuring sustainable comfort.

Thickness	d	mm	50	75	100
Thermal Conductivity Value (10 °C)	λ_D	W/m.K	0,037		
Thermal Resistance	R_D	m ² .K/W	1,35	2,00	2,70

Healthy Insulation

Several studies have been carried out on the development of various mechanisms that can guide the selection of healthy insulation products by European Union regulations. As a result of these studies, mineral wools, which can be used as a healthy alternative, started to be certified by EUCEB (European Certification Board for mineral wool products) established in 2000. EUCEB inspects whether the produced mineral wools have a healthy and safe content by the relevant European Union regulations. Certification of the products of the manufacturers by EUCEB ensures that the necessary conditions are met for healthy insulation. In this regard, as a product certified by EUCEB, izocam Optima Smart also guarantees healthy insulation.

Fire Safety

The fire regulation dictates that walls of high-rise buildings and buildings incorporating cinema, theatre, and halls with a capacity of over 100 people must be composed of hardly flammable materials. izocam Optima Smart can be safely used against fire in all types of buildings thanks to its **Class A1 Non-combustible** properties.

Areas of Use

- Lightweight partition wall systems
- Inner surfaces of external walls
- Adjacent walls
- Walls adjacent to stairwells and elevator shafts

Sound Insulation

Described as an undesired sound, noise is caused by external environmental sources or an indoor noise source next door. Sound insulation in buildings was made obligatory with the provisions of the "Regulation on Protection Against Noise in Buildings" published in May 2017. According to its function and necessity, partition wall performance was classified from A to F in buildings. izocam Optima Smart guarantees Class "A" sound insulation performance.

Thickness	d	mm	50	75	100
Weighted Sound Absorption Coefficient	α_w	-	0,80	1,00	1,00
Sound Absorption Rating	-	-	B	A	A



Loading Amount

Thickness (cm)	Package (m ²)	Pallet (m ²)	Truck (m ²)
5	16,2	388,80	9.331,20
7,5	12	288,00	6.912,00
10	9,6	230,40	5.529,60

Application

- 'U' channels should be used for the head and base of the partition. In order to fix the channels, marking is made along the ceiling and floor, leaving a 1-2 cm gap from the side wall.
- The channel is fixed to the ceiling and floor at 40 – 60 cm intervals along the marked line as specified in the project.
- Self-adhesive rubber tape is applied to the surface of the channel to prevent a sound bridge.
- Vertically placed stud dimension is measured, and the partition wall frame is formed by mounting the studs inside the channels.
- If no dimensions are specified in the project, then the stud is fixed to the side wall at intervals of 40 cm - 60 cm.
- After the assembly of the initial stud is completed, the studs are placed back-to-back on the horizontal axis into the channel on the ceiling and floor at 40 - 60 cm intervals if no dimensions are specified in the project, and leveled.
- Studs and channels forming the perimeter should be tightly butted together with clamping scissors.
- The packaging of Optima Smart, which consists of pre-cut parts, is opened with a utility knife.
- The length of the Optima Smart is determined to be 2 or 3 centimeters longer than the wall height and then cut with a utility knife. Optima Smart can also be applied in rolled form without being cut on the floor.
- Optima Smart is started to be placed from the inside of the head track, it is cladded on the inside of the "C" studs on the right and left sides towards the floor, and the partition insulation is completed by placing Optima Smart on the base track. The same steps are repeated for other partitions.
- After completing the load-bearing construction of the partition wall, rubber tapes are also recommended to apply stud's surface to avoid sound bridges.
- The gypsum boards are mounted after they are placed on the wedges pre-mounted on the floor leaving a gap of 1 cm between the wall and the floor.
- The gypsum boards are screwed vertically to the studs at a distance of 60 to 80 cm or at intervals specified in the project, thus completing the wall assembly.
- Self-adhesive plaster mesh is cladded on the joint sections of the gypsum boards. After applying plaster, surfaces can be painted as desired.



Scan the QR code to watch the application steps videos.

TECHNICAL DATA SHEET of OPTIMA SMART

Properties	Symbol	Unit	Description				Tolerance	Standard
Type	-	-	(Mineral Wool)				-	-
Width	b	mm	400+400+400		600+600		+/-1,5%	TS EN 822
Length	l	mm	13.500	10.000	8.000		+/-2%	TS EN 822
Thickness	d	mm	50	75-80	100		T1**	TS EN 823
Reaction to Fire	-	-	A1				-	TS EN 13501-1
Dimensional Stability	-	%	Max. 1				-	TS EN 1604
Thermal Conductivity (10 °C)	λ_D	W/m.K	0,037				-	TS EN 12667/12939
Thermal Resistance	R_D	m ² .K/W	1,35	2,00	2,15	2,70	-	-
Water Vapor Diffusion Resistance (*)	μ	-	1				-	TS EN 12086
Specific Heat (*)	c	kJ/(kg.K)	0,84				-	EN 12524
Dynamic Elasticity (*)	Edyn	kN/m ²	0,80				-	DIN 52214
Packaging Material	-	-	PE Film				-	-
Sound Absorption Coefficient (***)	d	mm	50	75	100		-	-
	α_w	-	0,8	1,0	1,0		-	-

* Literature value

** T1: -5 or -5% is allowed. The biggest value is chosen at minus tolerance, the smallest value is chosen at plus tolerance.

*** The values were measured at TUBITAK (Scientific and Technological Research Council of Türkiye) National Metrology Institute.

