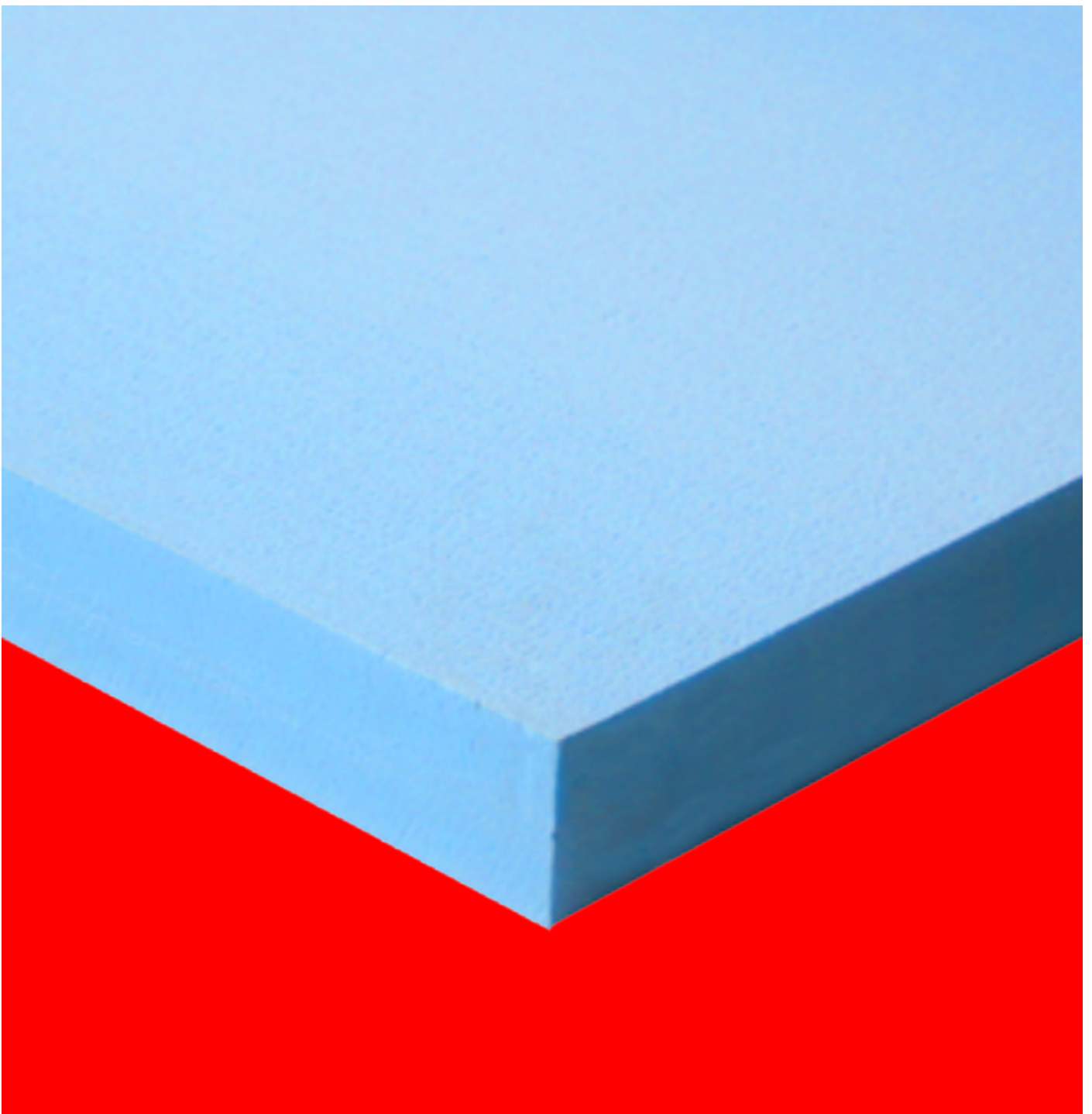
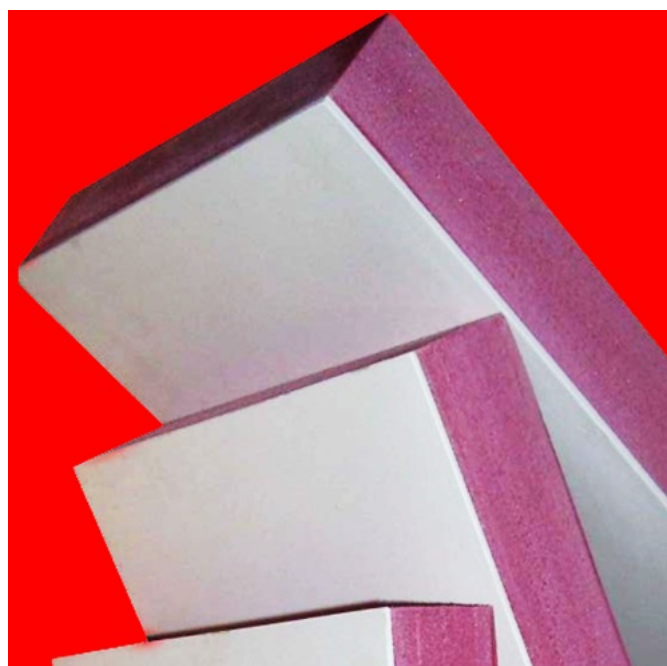
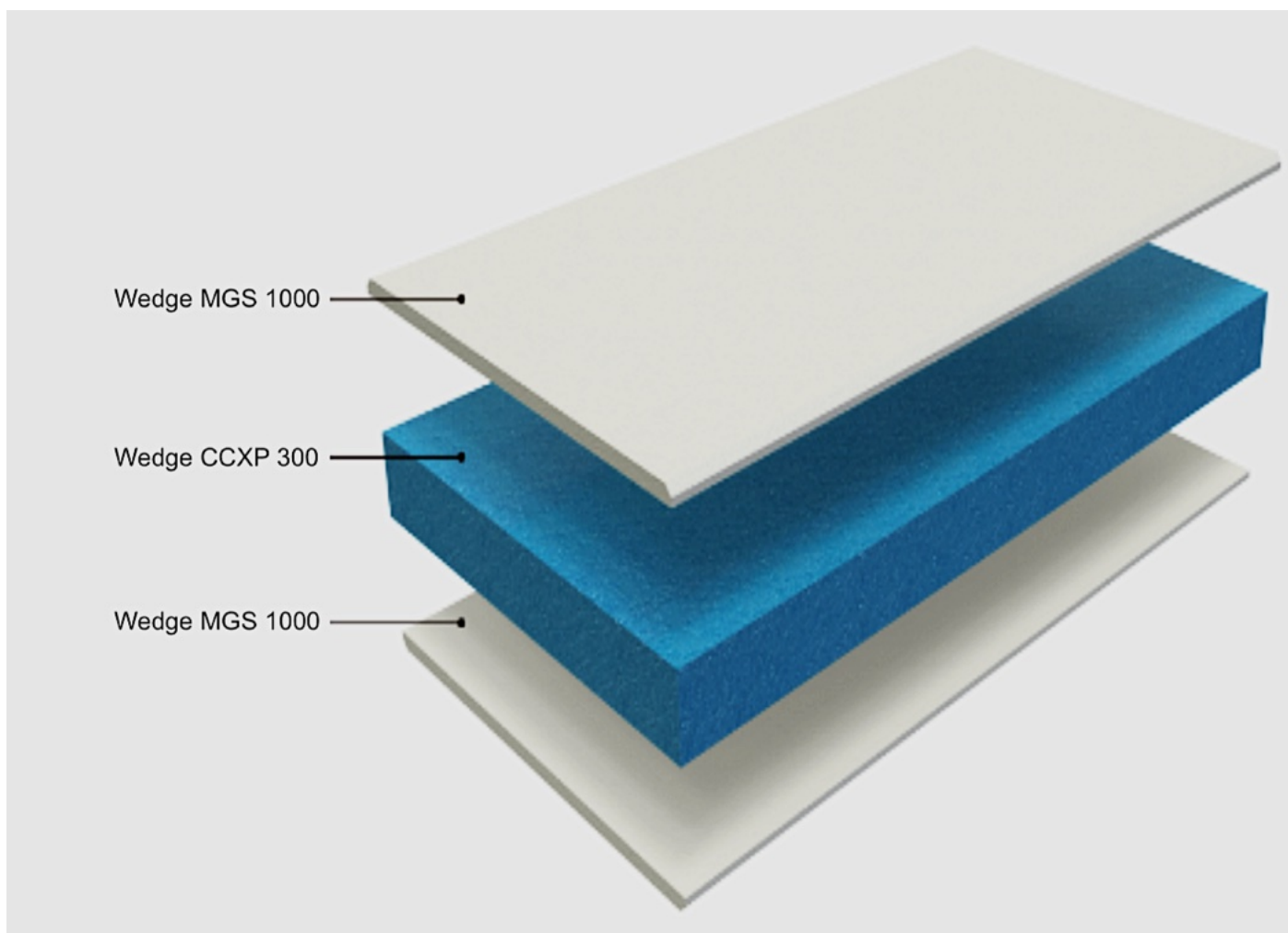


Wedge Insulation

High Performance Wedge CCXP Board
Creating Energy Smart Wall, Roof, Floor, Transportation





CCXP | Wedge Foam Board

Wedge CCXP are Closed-cell extruded polystyrene insulation foam boards, often abbreviated as XPS foam, is a type of rigid foam insulation commonly used in construction and various other applications. It is known for its excellent thermal insulation properties, moisture resistance, and durability. Key features of XPS Insulation boards are:

- **Structure:** XPS foam is made from polystyrene resin, which is mixed with additives and a blowing agent.
- **Insulation Properties:** XPS foam has a high R-value, it effectively resists the transfer of heat, making it an excellent choice for insulating walls, roofs, floors, and foundations.
- **Moisture Resistance:** Closed-cell XPS foam is inherently resistant to moisture and does not absorb water.
- **Durability:** XPS foam is resistant to rot, decay, and many chemicals, making it a long-lasting insulation material. It can also withstand high loads without significant compression, which makes it suitable for use in various construction applications.
- **Dimensional Stability:** XPS foam maintains its shape and insulation properties over time, even in the presence of temperature variations and moisture.



Applications Wedge CCXP Boards

Closed-cell extruded polystyrene foam board is used in a wide range of applications, including:

- **Insulation:** It is commonly used in residential and commercial buildings to insulate walls, roofs, floors, and foundations.
- **Under Slab Insulation:** XPS foam is often used beneath concrete slabs to provide insulation and prevent heat loss.
- **Exterior Sheathing:** It can serve as a sheathing material for exterior walls, helping to improve energy efficiency.
- **Waterproofing:** Due to its moisture resistance, XPS foam is used in waterproofing applications, such as protecting foundations from water intrusion.
- **Civil Engineering:** It is used in civil engineering projects for insulation and moisture control.

Benefits of Wedge CCXP Boards

XPS (Extruded Polystyrene) foam board offers several benefits, which is why it is a popular choice for insulation and various other applications. Here are some of the key benefits of XPS foam board:

- **Excellent Thermal Insulation:** XPS foam board has a high R-value, which means it provides effective thermal insulation. It helps to keep indoor spaces comfortable by minimizing heat transfer through walls, roofs, and floors.
- **Moisture Resistance:** XPS foam is inherently resistant to moisture. Its closed-cell structure prevents water absorption, making it an ideal choice for areas prone to moisture, such as basements and crawl spaces. It also resists water vapor transmission.
- **Durability:** XPS foam is a robust and long-lasting material. It can support heavy loads without significant compression, making it suitable for use in various construction applications.
- **Dimensional Stability:** It maintains its shape and insulation properties over time, even in the presence of temperature fluctuations. This ensures long-term performance.
- **Ease of Installation:** XPS foam boards are lightweight and easy to handle. They can be cut and shaped with common tools, simplifying the installation process for professionals and DIYers alike.
- **Versatility:** XPS foam is versatile and finds applications in a wide range of scenarios. It is commonly used for insulating walls, roofs, foundations, and floors in residential and commercial construction. It is also used in civil engineering projects and has applications in crafting and hobbies due to its ease of manipulation.
- **Chemical Resistance:** XPS foam is resistant to many chemicals and solvents, making it suitable for use in environments where exposure to chemicals is a concern.
- **Low Thermal Expansion:** XPS foam has minimal thermal expansion and contraction, reducing the likelihood of cracks or gaps developing in the insulation over time.
- **Sound Insulation:** XPS foam can also provide some degree of sound insulation when used as part of a building's construction.
- **Energy Efficiency:** By effectively insulating a building's envelope, XPS foam board can contribute to increased energy efficiency and reduced heating and cooling costs.
- **Environmental Considerations:** Some XPS foam products are manufactured with a low global warming potential (GWP) blowing agent, which reduces their impact on the environment.



CCXP | Wedge Foam Board Technical Data Sheet

Wedge CCXP foam board is a popular building material known for its excellent insulation properties and durability. Wedge CCXP foam boards have a high R-value, which means they provide effective thermal insulation. They help maintain stable indoor temperatures by reducing heat transfer through walls, roofs, and floors. Wedge CCXP foam has a closed-cell structure, which means the individual cells are closed off from each other. This structure provides resistance to moisture penetration and makes Wedge CCXP highly waterproof and resistant to water vapor.

Wedge CCXP foam is inherently resistant to moisture and does not absorb water. This property makes it suitable for use in damp or humid environments and helps prevent mold and mildew growth. Wedge CCXP foam is a durable material that can withstand heavy loads without significant compression. It retains its insulating properties over time and does not deteriorate easily. Wedge CCXP foam is resistant to most chemicals, making it suitable for use in a variety of applications where exposure to chemicals or solvents may occur. Wedge CCXP foam has minimal thermal expansion and contraction, reducing the risk of cracks or gaps developing in the insulation over time. When using Wedge CCXP foam boards, it's crucial to follow technical guidelines, local building codes, and safety precautions to ensure effective insulation and a safe installation.

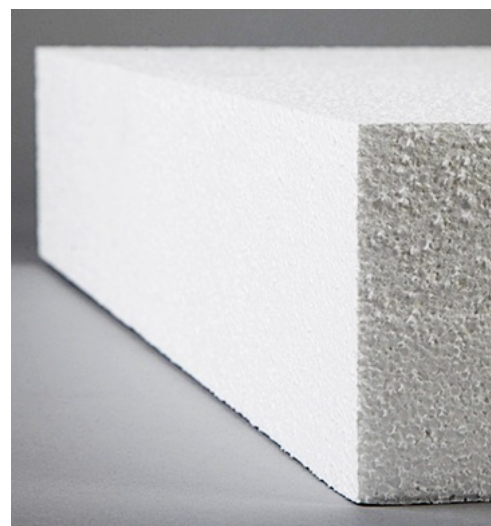
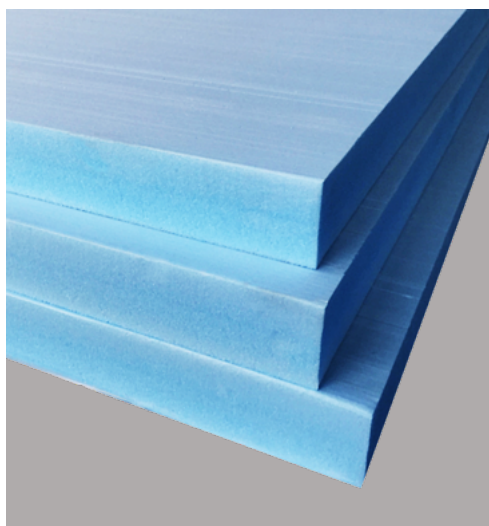
Technical Properties	Wedge CCXP 30	Wedge CCXP 35	Wedge CCXP 36	Wedge CCXP 45	Wedge CCXP 60	Wedge CCXP 70
Application Temperature °C	-30 to 80	-30 to 80	-30 to 80	-30 to 80	-30 to 80	-30 to 80
Thermal conductivity, ASTM C518						
at 10 °C, W/mK	0.028	0.028	0.028	0.028	0.028	0.028
at 25 °C, W/mK	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Bulk Density, Kg/m3, ASTM D1622	30	35	37	40	45	48
Compressive strength ASTM D1621, kPa	200	300	350	450	600	700
Compressive strength, psi	29	44	51	65	87	102
Flexural Strength, ASTM C203 kPa	345	400	410	425	525	690
Water vapour permeability at 25 mm ASTM E96, ng/Pa.s.m2	<85	<80	<80	<70	<65	<60
Water absorption by immersion, %	≤0.7	≤0.7	≤0.7	≤0.7	≤0.7	≤0.7
Limiting Oxygen Index, ASTM D 2863, %	24	24	24	24	24	24
Dimensional Stability, ASTM D2126, %	2	1.5	1.5	1	1	1
R-Value 1 Inch Thickness	R 5.1	R 5.1	R 5.1	R 5.2	R 5.2	R 5.2
R-Value 2 Inch Thickness	R 10.2	R 10.2	R 10.2	R 10.4	R 10.4	R 10.4
Thermal resistance RD, m2*K/W (ASTM C177 / C518 at Thickness mm)						
10	0.29	0.29	0.29	0.29	0.29	0.29
25	0.88	0.88	0.88	0.88	0.88	0.88
50	1.47	1.47	1.47	1.47	1.47	1.47
75	2.06	2.06	2.06	2.06	2.06	2.06
80	2.35	2.35	2.35	2.35	2.35	2.35
100	2.94	2.94	2.94	2.94	2.94	2.94
125	3.82	3.82	3.82	3.82	3.82	3.82
150	4.41	4.41	4.41	4.41	4.41	4.41
180	5.29	5.29	5.29	5.29	5.29	5.29
200	5.88	5.88	5.88	5.88	5.88	5.88
Colour	White, Yellow, Blue, Pink					
Thickness, mm	6 to 100					
Length, mm	1200 to 3000					
Width, mm	600 to 1200					
Edge Type	Square Edge, Shiplap, Tough and Groove					



Comparison Between CCXP and EPS Foam Board

XPS (Extruded Polystyrene) and EPS (Expanded Polystyrene) are both types of rigid foam insulation boards commonly used in construction and building applications. They have some similarities but also important differences that make them suitable for different situations. Here's a comparison of XPS vs. EPS insulation boards:

	Wedge CCXP Foam Board	EPS Foam Board
Composition	Extruded Polystyrene insulation boards are made by melting and then extruding polystyrene polymer mixed with various additives. The extruded material is formed into boards of various thicknesses.	Expanded Polystyrene insulation boards are created by expanding and molding polystyrene beads using heat and pressure. The beads are fused together to form the insulation board.
Insulation Performance	XPS typically has a slightly higher R-value (thermal resistance) compared to EPS of the same thickness.	EPS typically has a lower R-value (thermal resistance) compared to XPS of the same thickness.
Water Resistance	XPS is inherently more resistant to moisture compared to EPS. It has a closed-cell structure that makes it less permeable to water and more suitable for applications where moisture resistance is crucial, such as below-grade insulation or in areas prone to high moisture levels.	EPS Foam Boards have lower resistant to moisture compared to XPS.
Compression Strength	XPS tends to have higher compressive strength compared to EPS. This makes it more suitable for applications where the insulation will be subjected to heavy loads or compression, such as under concrete slabs.	EPS Boards has Lower compressive strength than XPS Foam Boards.
Durability	It is a robust and long-lasting material. It can support heavy loads without significant compression, making it suitable for use in various construction applications.	EPS Boards are loose it performance if exposed above 45 Degree C in summer and not suitable for longer life roof insulation.



Both XPS and EPS are relatively easy to install and can be cut to fit various shapes and sizes. They are lightweight and can be adhered or mechanically fastened to building surfaces. In summary, the choice between XPS and EPS insulation boards depends on your specific project requirements and priorities. If you need higher R-values, moisture resistance, or greater compressive strength, XPS may be the better option. On the other hand, if cost is a significant factor and you don't require the highest R-value or moisture resistance, EPS could be a more cost-effective choice. Consider consulting with a construction professional to determine the best insulation material for your specific needs. Additionally, always check local building codes and regulations when selecting insulation materials for your project.

“Creating Energy Smart Buildings”



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