

FREQUENTLY ASKED QUESTIONS

1 What is Magnum Board made of?

It's a mineral-based board primarily composed of magnesium oxide (MgO), designed to be non-toxic, fire-resistant, and environmentally friendly.

2 Is Magnum Board fire-resistant?

Yes. It is non-combustible and has passed stringent fire safety tests, making it ideal for fire-rated assemblies.

3 Is it mold and mildew resistant?

Absolutely. Its inorganic composition resists mold, mildew, and fungus growth, even in high-humidity environments.

4 Can it be used in wet areas like bathrooms or kitchens?

Yes. Magnum Board is water-resistant and dimensionally stable, making it suitable for wet and humid areas.

5 Is it safe for indoor air quality?

Yes. It contains no VOCs, formaldehyde, asbestos, or silica, and it's vapor-permeable, allowing walls to breathe.

6 How does it compare to drywall or cement board?

It's stronger, more durable, and more resistant to fire, water, and pests than traditional drywall or cement board.

7 Is it environmentally sustainable?

Yes. It's CO₂ negative during production, recyclable, and manufactured at ambient temperatures with minimal energy.

8 Can it be painted or tiled?

Yes. It accepts a wide range of finishes including paint, tile, wallpaper, stucco, and stone.

9 Is it easy to install?

Yes. It's lightweight, easy to cut and shape, and can be installed using standard tools and fasteners.

10 Does it corrode metal fasteners?

No. It is chemically stable and does not corrode metal components when installed correctly.

11 What is a Cold-Formed Steel Building?

It's a structure built using light-gauge steel components (like C- or Z-shaped studs and trusses) that are roll-formed at room temperature from sheet steel.

12 How does it differ from Pre-Engineered Metal Buildings (PEMBs)?

PEMBs use heavy, hot-rolled steel components, while CFS buildings use lighter, cold-formed steel. CFS is often more flexible for smaller or urban projects and easier to handle on-site

13 Is Cold-Formed Steel strong enough for structural use?

Yes. Despite being lightweight, CFS is engineered for high strength-to-weight ratios and is suitable for structural framing, especially in low- to mid-rise buildings

14 What are the main advantages of CFS buildings?

- Fast construction
- Cost-effective
- Lightweight and easy to transport
- Resistant to termites, mold, and fire
- Sustainable and recyclable 1

15 Are Cold-Formed Steel buildings energy efficient?

Yes. They can be designed with high-performance insulation and air barriers, contributing to energy-efficient envelopes

16 How do CFS buildings perform in extreme weather?

They perform well under wind, snow, and seismic loads when properly engineered. Their flexibility and ductility help absorb stress without cracking

17 Is Cold-Formed Steel environmentally friendly?

Yes. It's 100% recyclable, produces less waste, and often contains a high percentage of recycled content

18 Can CFS buildings be customized?

Absolutely. They offer great design flexibility and can be tailored for residential, commercial, or industrial applications.

19 What are the limitations of Cold-Formed Steel?

It may not be ideal for very large clear-span structures or extremely heavy loads compared to hot-rolled steel systems

20 Is it cost-effective compared to other systems?

Yes. CFS buildings often have lower material and labor costs, especially for smaller-scale or infill projects

21 Code Compliance

CFS framing is widely used in **fire-rated assemblies** that meet building codes such as the **International Building Code (IBC)** and **NFPA standards**.

22 Performance in Fire

- Steel retains strength up to about **1,100°F (593°C)**.
- At higher temperatures, it begins to lose structural integrity, so **fireproofing materials** (like gypsum or spray-applied fire-resistive materials) are often used in rated assemblies.

23 Common Fire-Rated Assemblies

CFS is used in:

- 1-hour and 2-hour rated walls
- Fire-rated floor-ceiling systems
- Shaft walls and stair enclosures

24 Is Cold Form Steel Fire Resistance?

Yes, cold-formed steel (CFS) is inherently non-combustible and fire-resistant.

Steel does not burn or contribute fuel to a fire, making it a safe choice for fire-rated construction.

25 What about the exterior moisture barrier, do I need to wrap the building like I do with other building types?

The short answer is no. The **KRATOS™** wall solution is tested and rated as an impermeable assembly based on TAS 202-94 testing protocols, providing both continuous insulation and sheathing pre-installed in the factory, without mechanical fasteners. After erection and fastening of the exterior wall panels, typically only the joints, holes and any repairs must be filled/sealed. The overall process is fast and easy, eliminating the typical process of WRB application. Below are a few excerpts from one of the test sessions performed in 2019 based on the TAS 202-94 protocol, which tests for air and water penetration. Both test results showed phenomenal performance

26 What About Thermal bridging, as I heard this is a problem with steel framing?

When insulating an exterior wall, building codes are now requiring continuous insulation on the exterior of the studs to reduce the effect of thermal bridging. As the energy and building codes continue to become more stringent, aiming to create more environmentally sustainable “green” buildings, the application and thickness of the continuous installation has increased. Although wood, block, concrete, and steel are all impacted, the requirements can be higher for steel framing. The KRATOS™ wall solution is a patented technology where the exterior insulative sheathing is adhered to the steel frame in a continuous manner, and without any mechanical fasteners. Since the direct connection of the steel frame, and the fasteners from the exterior face to the frame are eliminated, a true thermal break is achieved. In addition, the exterior continuous insulative sheathing thickness is adjustable so any R-value requirement can be achieved. Another major and often overlooked benefit is the elimination of the thousands of fasteners, resulting in less material, labor, and holes in the entire exterior wall surface, thus reducing the risks of future leaks, providing enormous benefits to both the builder and the owner.