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Subject:	Advantages of Magnum Fiber Reinforce MgO Building Materials over Magnesium Sulfate Boards
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The choice between a Magnesium Oxychloride (MOC) board (MgO + $MgCl_2$) and a Magnesium Oxysulfate (MOS) board (MgO + $MgSO_4$) depends on the performance characteristics you need. While MOS boards are often marketed as a solution to the chloride-related problems seen in some low-quality MOC boards, a properly engineered MOC board can offer significant advantages.

Advantages of Magnum Board® Magnesium Chloride (MOC) Building Materials

1. Higher Strength and Toughness
   - ✓ Higher flexural strength
   - ✓ Better impact resistance
   - ✓ Greater fastener-holding capacity
   - ✓ Improved resistance to cracking during handling and installation
2. Faster and More Complete Cure
   - ✓ Cure more rapidly
   - ✓ Develop higher early strength
   - ✓ Allow more efficient manufacturing
   - ✓ Typically achieve a denser matrix

The resulting board is often stronger and more dimensionally stable.

3. Better Fire Performance
   - ✓ Contains chemically bound water that absorbs heat during a fire
   - ✓ Has a long history of excellent fire-resistance performance
   - ✓ Is commonly used in fire-rated wall and roof assemblies

Magnum fiber reinforced MgO building materials are UL rated for 1 hour fire wall using a single sheet of 12mm (nominally ½") sheathing on either side and a 2 hour fire wall using a single sheet of16mm (nominally 5/8") sheathing each side.
Magnum's fire wall assemblies are not only faster to install improving job site schedules by as much as 20; are more cost effective adding to the bottom line; and, they provide an extremely safe environment.
Magnum fiber reinforced MgO building materials are also non-flammable, non-combustible and have a zero smoke spread certification by UL.

4. Superior Bonding Characteristics - Magnum fiber reinforced MgO building materials formsa strong bond with:
   - ✓ Fiberglass mesh
   - ✓ Wood fibers
   - ✓ Mineral fillers
   - ✓ Various reinforcing materials

Magnum fiber reinforced MgO building materials have an excellent bonding capacity for finishes such as paints, lime coatings, cement and non-cement boased and much more. This contributes to the durability and strength of Magnum Board®.
Summary
Much has been made of the Denmark MgO failures in past years; however, what Magnesium Sulfate sheathing suppliers and some Magnesium Chloride suppliers fail to tell you is why those failures occurred.

- To cut costs, a high chloride, low density sheathing was specified and used.
- Incorrect thickness of sheathing was specified and used.
- Incorrect fasteners were specified and used.

In summary, the Denmark projects were destined for failure before construction ever started. Don't be misled by tales that are unsupported.
A well-engineered magnesium chloride (MOC) board such as Magnum fiber reinforced MgO building materials generally provide a higher strength, better toughness, superior fastening performance, faster curing, and lower cost than a magnesium sulfate

(MgSO4) board. The historical problems associated with Magnesium OcyChloride boards were primarily the result of poor formulations and excessive free chlorides, not the magnesium chloride chemistry itself. When manufactured with controlled chemistry and proper quality assurance, Magnesium OxyChloride materials, such as Magnum Fiber Reinforced MgO Building Materials, can provide excellent long-term performance while delivering mechanical properties that are difficult for MgSO4 materials to match.

Please give us a call. We would welcome an opportunity to participate with you on all your projects.

On Behalf of
Mother - Nature

THANK YOU

"GOTTA GO GREEN"