



**MAGPANEL  
 COMPOSITION:  
 MgSO4 vs MgCl**

When it comes to magnesium oxide boards, there are two basic formulations: MgSO<sub>4</sub> (magnesium sulfate) and MgCl (magnesium chloride). Ambient MagPanel is (all) mgso<sub>4</sub> with mgcl available as special order.

Let's see how they compare in terms of composition, characteristics, and applications.

**PANEL COMPOSITION**

<b>MgSO<sub>4</sub> (Magnesium Sulfate)</b>	<b>MgCl (Magnesium Chloride)</b>
Magnesium oxide (56-58%)	Magnesium oxide (56-58%)
Perlite (3-4%)	Perlite (3-4%)
Fiberglass mesh (4-6%)	Fiberglass mesh (4-6%)
Wood fiber (5-6%)	Wood fiber (5-6%)
Phosphate (PO <sub>4</sub> )(0.1-0.3%)	Phosphate (PO <sub>4</sub> )(0.1-0.3%)
Dissolvable chloride content (1%)	Dissolvable chloride content (5%)
Magnesium sulfate (27-29%)	Magnesium chloride (27-29%)

There are two things to take note of when it comes to the composition of these two panels. First, the presence of magnesium sulfate vs. magnesium chloride and second, the level of dissolvable chloride content. As you can see in MgSO<sub>4</sub>, magnesium sulfate replaces the magnesium chloride in MgCl.

So, if you're not a chemist, you're probably wondering what that means. Simply put, the magnesium sulfate makes the MgSO<sub>4</sub> panels incredibly water-resistant, by preventing moisture from absorbing back to the halogen in the board.

This contrasts with how magnesium oxide (MgCl) boards were produced in the past, which resulted in "weeping boards" and corrosion of metal fasteners. The next evolution of magnesium oxides boards is magnesium sulfate (MgSO<sub>4</sub> aka MagPanel) boards.

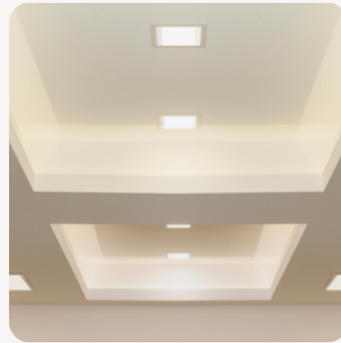
Due to these advances in manufacturing, when you purchase MagPanel, you don't have to worry about "weeping boards."

## MAGPANEL COMPOSITION: MgSO<sub>4</sub> vs MgCl

## PANEL CHARACTERISTICS

Despite slight compositional differences, MgSO<sub>4</sub> and MgCl panels have generally the same characteristics:

- Highly water-resistant
- Lightweight
- Non-combustible
- Highly mold/mildew-resistant
- Easy to install
- Heating isolation
- Sound reduction
- Incredibly stable
- Impact resistance
- Bending strength



## PANEL APPLICATIONS

MagPanel has a wide variety of uses that apply to both MgSO<sub>4</sub> and MgCl panels:

- Ceilings & walls
- Subflooring
- Tile backer
- Firewalls
- Partitions
- Structural sheathing (for wood/metal stud walls)
- Soffits
- Fascias
- Shaft liners
- Shower stall tile backer
- Substrates for insulated coating systems (stucco, EIFs, and direct-applied finish systems)