# Prevent Sag; Speed The Construction Process With Humidity-Resistant Ceiling Systems

**Look For These Icons** identifying HumiGuard ceilings throughout this catalog.

HumiGuard Max

HumiGuard Plus

## New Standards of Humidity Resistance

Humidity resistance, or sag resistance, is measured up to direct contact with standing water. Panels with high humidity resistance are more resistant to sagging. Armstrong has three levels of humidity-resistant ceilings.

**HumiGuard Max**

Resistance to 100% humidity and standing water, such as indoor pools and outdoor applications. Armstrong Fine Fissured Ceramaguard meets this standard.

**HumiGuard Plus**

This category of Armstrong ceilings provides validated performance required for all high humidity applications – just short of standing water, direct contact with water or exteriors. These products can be installed earlier in the construction process (before the building is enclosed), wherever HVAC systems might be shut down, or in all high humidity applications other than outdoors or where subjected to standing water.

**Standard**

Virtually all other Armstrong acoustical panels provide acceptable humidity resistance for most conventional commercial building applications: the building is closed in; HVAC systems are functioning on an ongoing basis.

### 15-Year Limited Warranty

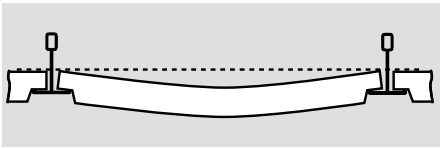
All Armstrong HumiGuard Plus ceilings and HumiGuard Max ceilings are backed by a 15-Year Limited Warranty against warping or sagging when installed with Armstrong hot dipped galvanized grid. These suspension systems provide superior resistance against red rust and corrosion. See pages 209-211 for more information.

### Armstrong HumiGuard Ceilings:

- Can be installed before buildings are enclosed
- Minimize replacement of sagging ceilings
- Stay flat, even where HVAC systems are cycled
- Contribute to indoor air quality – even inhibit or retard mold and mildew on the ceiling's painted surfaces

Humidity-resistant products like Armstrong **HumiGuard** ceilings and hot dipped galvanized grid add value during and after the construction process. Their performance enables contractors to install the ceiling before the building is enclosed and minimizes ceiling replacement after construction for longer term, sustainable design. Additionally, **HumiGuard** ceilings aren't negatively affected by intermittent or seasonal facility use, where HVAC may be shut down for extended time frames. Most mineral fiber HumiGuard ceilings are treated with BioBlock paint containing a special fungicide that inhibits or retards the growth of mold or mildew on their painted surfaces.

### Reasons For Ceiling Sag



The obvious cause of sagging ceilings is high moisture exposure in high humidity building applications such as laboratories, kitchens, locker rooms, shower areas and indoor pools. There are, however, other building conditions that can result in ceiling sag if the proper ceiling isn't selected:

- Intermittent, seasonal use of facilities, like schools and resorts, where HVAC systems might be shut down for extended periods.
- Timing of acoustical ceiling installation in the construction cycle: ceiling systems installed prior to the activation of HVAC systems in new construction or renovation projects are prone to sagging.
- Exterior ceiling applications, such as soffits, that expose acoustical ceilings to outside weather conditions.
- Indoor air quality: the trend toward increasing the percentage of outside air that is circulated through a ventilation system increases the possibility of sagging.

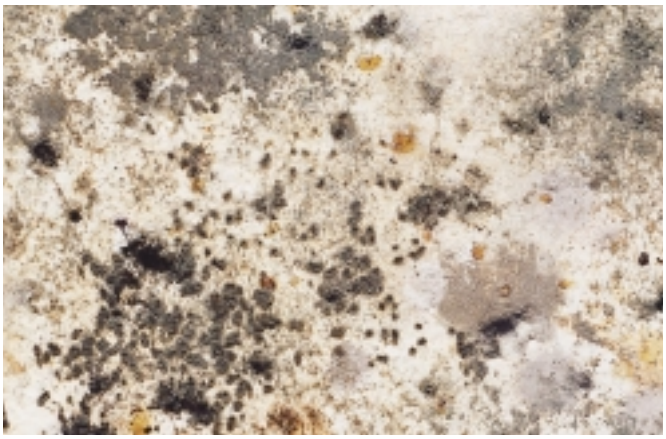
Sagging not only diminishes the attractiveness of a space, but it also causes ceilings to chip and soil more easily and cuts down on the high light reflectivity so critical in today's workplace.

## HumiGuard Ceilings Even Inhibit Surface Spread of Mold and Mildew

HumiGuard ceilings not only resist sagging but also inhibit or retard the growth of mold or mildew on their painted surfaces that can result from high humidity conditions.

- Controlled laboratory tests have demonstrated the effectiveness of this BioBlock application compared to standard, untreated ceilings. (Mold and mildew resistance tested pursuant to ASTM D 3273 method*, with performance evaluation based on ASTM G 21 criteria.)
- After a 28-day incubation period, a HumiGuard ceiling panel received a rating of 0, signifying no visible mold growth.
- The standard "control" ceiling panels received a rating of 4, signifying "heavy growth" (on more than 60% of each specimen).

*"Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber."



Untreated ceiling

Armstrong HumiGuard ceiling with BioBlock treatment

**Ceiling Resources Available to You:**

• Summary listing, Armstrong High Humidity-Resistant ceilings – page 16
• Warranty details – pages 209-211
• TechLine assistance – 1-877-ARMSTRONG (Option 3)

**www.ceilings.com**