
FIRE PREVENTION AND BUILDING SAFETY COMMISSION
Department of Homeland Security

Written Interpretation of the State Building Commissioner

Interpretation #: CEB-2022-08-2014 IBC-1210.2.2

Building or Fire Safety Law Interpreted

[675 IAC 13-2.6](#) 2014 Indiana Building Code, Section 1210.2.2 Walls and partitions. Walls and partitions within 2 feet (610 MM) of service sinks, urinals, and water closets shall have a smooth, hard, nonabsorbent surface, to a height of not less than 4 feet (1219 mm) above the floor, and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture.

[Exceptions omitted for lack of relevance to the request.]

Issue

Whether a smooth, hard, and nonabsorbent finish material applied to a wall material that is adversely affected by moisture is acceptable under Section 1210.2.2 of the *2104 Indiana Building Code* (IBC).

Interpretation of the State Building Commissioner

No. No finish material, including one that is smooth, hard, and nonabsorbent, is permitted by Section 1210.2.2 of the *2014 IBC* if that finish material is applied or installed on a wall that contains a material that is adversely affected by moisture.

Rationale

In examining the documentation provided by both parties to this request, the actual dispute appears not to lie with the question of acceptability of epoxy paint in general¹, but with the substrate to which it is proposed to be applied, and with the other materials used in construction of the wall.

Those materials are required by the code to be of a type not adversely affected by moisture. The reason for this is to prevent deterioration in the event the finish surface is damaged to the point that its impermeability has been breached or otherwise compromised. In considering this type of performance, it is necessary to draw a distinction between installations in which materials are damaged from periodic exposure to moisture, and those that are damaged only from long-term exposure or immersion. The regulation in question deals with the former and is intended to disqualify those materials that may fail under such incidental exposure. The code's presumption is that when walls include such materials, there are no finishes that are considered compliant with this regulation.

In this instance, the question appears to be whether gypsum drywall on wood studs complies with the code requirement that materials not be adversely affected by moisture. The nature of standard gypsum board panels is that they are damaged by exposure to moisture, and continuous immersion is not required to produce such damage. Paper facings and the gypsum core both become soft. The facings are readily torn and removed, while the core is subject to swelling and, upon drying, powdering and cracking. The product in general is also capable of supporting the growth of mold in the presence of moisture. These are commonly seen results of gypsum drywall that has been exposed to wet or damp conditions. It quite obviously would fail the code requirement.

However, many gypsum board manufacturers provide moisture and water-resistant panels of various compositions, made specifically for installation in damp locations such as toilet and bathing rooms. They utilize alternative, modified, or reinforced materials in the facings and/or core that make them intended for use in such environments. By their nature, they are considered materials not adversely affected by moisture.

As to the question of the materials used within the wall, and to which the surface materials are applied, wood framing members must be considered acceptable. It is true that wood as a material may be damaged from long-term or repeated exposure or immersion in water, but the fact is virtually every wood-framed construction site outside of desert climates has experienced rain and/or snow exposure prior to closing-in of the structure, without long-term detrimental effects if the wood is allowed to dry before the application of surface materials commences. Given the quantity of Type V construction in existence, and the need for toilet and/or bathing facilities in nearly every one, the prohibition of wood framing in these damp location walls is not practical. Such an approach would make nearly every Type V structure in existence noncompliant.

¹ In the absence of quantifiable performance criteria tied to specific code requirements, we are unable to provide statements of acceptability of construction materials and products. We are not a materials testing and labeling

laboratory; we lack the resources and expertise to provide such services. That work is left to nationally recognized laboratories and organizations. Non-quantifiable determinations must be based on that data, or in its absence, on manufacturers' published statements of suitability to proposed purpose.

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