

Agrichemical Warehousing Standard Association

WAREHOUSING STANDARDS BULLETIN

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FIRE WALLS

The exterior walls of a warehouse shall be constructed such that the fire resistance rating shall be not less than one (1) hour, or shall be of non-combustible construction. The walls can be constructed of combustible materials, provided the materials meet the fire resistance rating.

Can I use a steel building?

Yes. The National Building Code lists steel as non-combustible and is exempt from any additional fire protection requirements.

Can plywood be applied over drywall?

Some warehouses apply plywood over drywall to serve as protection from impact.

The addition of wood structural panels covering the fire-rated gypsum **board wall** assemblies is permitted.

Reference: National Building Code 2015 Clause. 3.1.5.12. Combustible Interior Finishes

1) Combustible interior finishes, including paint, wallpaper, and other interior finishes not more than 1 mm thick, are permitted in a building required to be of non-combustible construction.

2) Combustible interior wall finishes, other than foamed plastics, (for example plywood) are permitted in a building required to be of non-combustible construction provided they a) are not more than 25 mm thick, and b) have a flame-spread rating not more than 150 on any exposed surface, or any surface that would be exposed by cutting through the material in any direction.

Further, when constructed of combustible materials, plywood is allowed to be added onto of the drywall.

Reference: National Building Code 2015 Clause 3.1.5.6. Combustible Components in Exterior Walls

1) Combustible components, other than those permitted by Article 3.1.5.5., are permitted to be used in an exterior wall assembly of a building required to be of non-combustible construction, provided:

- a) the building is*
- i) not more than 3 storeys in building height, or*
- ii) sprinklered throughout.*

Please note, this is contrary to and supersedes what appears on page 57 of the 2022. Accredited Seed Treatment Operation Standards.

Does insulation impact the fire-rating of a wall assembly?

Yes – Many warehouses use insulation in their wall assemblies to provide protection from the elements. This is allowed provided:

- If the insulation is applied to non-combustible construction materials (steel studs, steel siding etc.), evidence would be required that confirms the insulation is non-combustible. If the insulation is combustible, the wall assembly must be made up of a combination of materials (insulation, drywall) to get the required rating (1 or 2 hours).
- For walls made of combustible materials, insulation must be factored into the assembly to confirm that the combination of materials provides a 1 (or 2) hour rating.

Can paint be used for to achieve a fire rating?

Paint doesn't give any fire rating. It provides flame spread ratings which is something completely different. Fire resistant resists the flame spread whereas fire walls prevent the structural failure in case of fire.

When the seed code was launched some grandfathered sites with elevated treaters with combustible support structure (i.e. wood) were granted allowance to use paint with a fire spread rating of A on the support structure. This would not be acceptable for any new certifications or renovation of existing certified sites.