

Division Opinion

Inquiry: 2008-04
Subject: Permitted use of wood in roof assemblies.
Code Reference: IBC Sec. 603
Approved by: Thomas Anderson, State Building Official
Issue Date: July 25, 2008

Questions: Can a project of Type I or Type II construction contain non fire-retardant-treated wood in it's roof covering assembly for wood cants, vertical plywood nailers (or mop boards), and blocking used in the construction of parapets, expansion joints, and mechanical/electrical/plumbing equipment curbs?

If no, is the use of fire-retardant-treated (FRT) wood allowed instead?

Code states: IBC Sec. 602.2 requires that for Type I and II construction the building elements identified in IBC Table 601 are to be of noncombustible materials, except as permitted in Section 603 and elsewhere in this code. IBC Sec. 603 item 11 allows for combustible "blocking".

Answer: The code does not define all that is considered 'blocking', however it is our opinion that wood used in roof construction for expansion joints, cants, mechanical equipment curbs, curbs for skylights and at the top of parapets for securing coping, would all qualify for this exception. Plywood used for mop boards would also be permitted provided it was applied to a continuous non-combustible backing and is no greater in height than that necessary to provide a weather resistant edge.

Commentary: Unfortunately the code does not quantify 'how much' blocking is permitted, but clearly the intent is to limit the amount. Therefore it becomes a subjective decision by the building official based on amount proposed and the application. As an example, the curbing for a few skylights should not pose a concern. However a warehouse that had 40 skylights used as smoke and heat vents, may be deemed as an excessive risk.

Although technically still considered 'combustible' the use of FRT wood is specifically allowed in unlimited quantities for roof construction complying with IBC Sec. 603 item 1.3 or footnote 'c' of IBC Table 601. Therefore, when the amount of blocking exceeds that which the building official is comfortable with, a possible solution is to use FRT wood as an Alternate Material and Method under MN 1300.0110 Subpart 13.