



TECHNICAL ADVISORY

May 5, 2022

Painting Interior Steel

Anecdotal evidence suggests a recent increase in the specification of primer for fully enclosed steel members in building structures. However, **this practice is not recommended** and unnecessarily results in increased costs while also producing a negative environmental impact.

AISC’s longstanding recommendation is that in building structures, steel need not be primed or painted if it will be enclosed by building finish, coating with a contact-type fireproofing, or in contact with concrete. As stated in [section M3.1](#) of the *AISC Specification for Structural Steel Buildings* (1993, 1999, 2005, 2010, 2016, and 2022): “Shop paint is not required unless specified by the contract documents.” The [commentary](#) then elaborates that: “The surface condition of unpainted steel framing of long-standing buildings that have been demolished has been found to be unchanged from the time of its erection, except at isolated spots where leakage may have occurred. Even in the presence of leakage, the shop coat is of minor influence ([Bigos et al., 1954](#)).” A similar situation exists when steel is fireproofed or in contact with concrete; in fact, paint is best omitted when steel is to be fireproofed because primer decreases its adhesion.

Exceptions to the advice not to prime or paint steel in enclosed structures is when the critical relative humidity level is expected to be above 70% or in industrial structures where corroding chemicals are present.

Reference

Bigos, J., Smith, G.W., Ball, E.F. and Foehl, P.J. (1954), “Shop Paint and Painting Practice,” *Proceedings of AISC National Engineering Conference*, Milwaukee, AISC, Chicago.