



Designation: C1546 – 19

Standard Guide for Installation of Gypsum Products in Concealed Radiant Ceiling Heating Systems¹

This standard is issued under the fixed designation C1546; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This guide² provides information for trades installing gypsum products in conjunction with a concealed radiant ceiling heating system constructed from thin sheet flexible radiant heating panels, and for the installation of gypsum products after repair of existing concealed radiant ceiling heating systems constructed from heating cable or thin sheet flexible radiant heating panels.

1.2 The values stated in inch-pound units are to be regarded as standard. No other units of measurement are included in this standard.

1.3 This guide does not purport to address any aspect of concealed radiant heating system design or performance, and is limited to the proper installation of gypsum products specified for use in a concealed radiant ceiling heating system.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 The text of this standard references notes and footnotes which provide explanatory material. These notes and footnotes shall not be considered as requirements of the standard.

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

¹ This guide is under the jurisdiction of ASTM Committee C11 on Gypsum and Related Building Materials and Systems and is the direct responsibility of Subcommittee C11.03 on Specifications for the Application of Gypsum and Other Products in Assemblies.

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² The first edition of this guide replaced Appendix X.7 of Specification C840 - 99a.

2. Referenced Documents

2.1 *ASTM Standards*:³

C840 Specification for Application and Finishing of Gypsum Board

C841 Specification for Installation of Interior Lathing and Furring

C842 Specification for Application of Interior Gypsum Plaster

3. Terminology

3.1 *Definitions*:

3.1.1 *concealed radiant heating system, n*—a system that operates by heating the building materials that conceal the heat source, which in turn transfer the heat into the heated area by radiant emission.

3.1.2 *facing, n*—the finished surface layer through which heat is transferred into a heated area.

3.1.3 *flexible radiant heating panel, n*—a thin sheet heating element intended to produce heat when connected to an electrical supply.

3.1.4 *furring, n*—spacer elements added to a building structure to facilitate fastening of gypsum panel products.

3.1.5 *gypsum product, n*—building material intended for use in radiant heated ceiling construction, containing gypsum in its composition or construction.

3.1.5.1 *Discussion*—The gypsum products most often associated with radiant heating systems are gypsum panels and gypsum plaster.

3.1.6 *heating cable, n*—an electrically insulated cable intended to produce heat when connected to an electrical supply.

4. Significance and Use

4.1 The purpose of this guide is to provide information to gypsum product installers for the avoidance of hazards associated with the installation of gypsum products adjacent to, or

³ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.