

ASTM: Standards for the roofing industry

by Mark S. Graham

Many roofing professionals recognize the acronym "ASTM." However, they may not be familiar with the organization the acronym represents or its role in the roofing industry. Formed in 1898, the American Society for Testing and Materials (ASTM) is a not-for-profit organization that provides a forum for producers, users, ultimate consumers and those having a general interest (e.g., government and academia) to meet, develop and maintain standards for materials, products, systems and services.



ASTM has no technical research or testing facilities. Instead, research and testing are conducted by more than 31,000 volunteer ASTM members from throughout the world. In its 1998 annual report, ASTM estimated the value of its volunteer members' time contributed during 1998 was \$80 million.

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ASTM membership is open to all who are involved in the fields in which ASTM is active. Roofing professionals should consider participating in ASTM—participation allows roofing professionals to share their experiences and expertise, as well as have a role in the development of ASTM's roofing-related standards.

Standards

ASTM develops and maintains standards in five general categories: specifications (e.g., material specifications); tests (e.g., laboratory test methods); practices (e.g., installation practices); guides (e.g., design guides); and definitions.

The organization publishes more than 10,700 standards annually, and the standards are published in a 73-volume set titled *Annual Book of ASTM Standards*. Standards also are available individually and in a four-volume set titled *ASTM Standards in Building Codes*, which contains more than 1,300 standards included in model codes.

The following standards volumes have direct applicability to roofing:

- 04.04—Roofing, Waterproofing and Bituminous Materials
- 04.05—Chemical-Resistant Non-metallic Materials; Vitrified Clay Pipe, Concrete, Fiber-Cement Products; Mortars and Grouts; Masonry
- 04.06—Thermal Insulation; Environmental Acoustics
- 04.07—Building Seals and Sealants; Fire Standards; Dimension Stone (e.g., slate)
- 04.11—Building Construction (e.g., metal roofing)

Committees

Standards are written and maintained in 131 ASTM standards-writing committees, six of which apply to roofing. ASTM's roofing-related committees address thermal insulation; fiber-reinforced cement products (e.g., fiber-cement shingles); building seals and sealants (e.g., liquid-applied waterproofing); roofing, waterproofing and bituminous materials; dimension stone (e.g., slate); and performance of buildings (e.g., metal panel roof systems).

Within each committee there are various subcommittees and numerous task groups that work on specific standards. For example, the material standard for asphalt used in roofing, ASTM D 312, is maintained within a task group of Subcommittee D08.03

on Surfacing and Bituminous Materials for Membrane Waterproofing and Built-Up Roofing. That subcommittee is a part of Committee D08 on Roofing, Waterproofing and Bituminous Materials.

Standards' roles

ASTM standards frequently are referenced in manufacturers' literature, project specifications and contract agreements as bases for establishing design requirements, test methods and material requirements.

Also, ASTM standards, particularly material standards and test methods, frequently are referenced in model codes to establish minimum levels of testing, as well as material and building system (e.g., roof system) performances.

Closing thoughts

Roofing professionals are encouraged to be familiar with and use ASTM standards when appropriate in the design and specification of roofing materials and roof systems. Referencing ASTM standards in project specifications and purchase orders for roofing materials is a practical means of ensuring a reasonable level of material quality.

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Roofing professionals are encouraged to join ASTM and actively participate in ASTM committees. The collective experiences of ASTM's committee members are vital to sustaining ASTM and improving its standards for the roofing industry.

For more information about ASTM, roofing professionals should call ASTM at (610) 832-9693 or access its Web site at www.astm.org. PR

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