



Technical Bulletin #21

ASTM

July, 2001

The reference to ASTM felt as a minimum requirement has raised questions that we hope to clarify with this bulletin.

First of all, ASTM is not a code. ASTM is an acronym for American Society for Testing and Materials. ASTM is an organization made up of scientists, engineers, manufacturers and other interested parties who work together to develop standards for virtually all the materials that surround us on a daily basis. Standards exist for nearly everything from textiles to nuclear reactors.

The purpose of having standards is to ensure a minimum level of quality and performance that provides us with confidence in our products and infrastructure. These standards are not commonly discussed or scrutinized by the general public but are intrinsic components of our social and political structure.

How this applies to the tile roofing industry is fairly clear. The performance and longevity of a roofing system depends on the integrity of each component. A product produced to an ASTM standard assures the user that the product was manufactured to a standard that deems the product suitable for intended use.

The International Building Code 2000 now requires that underlayments for all roofing materials comply with ASTM standards. In short, usage of any underlayment other than those manufactured to pertinent ASTM standards would be contrary to code and could result in liability on the part of the user. Up to now, the building codes were not specific in the identification of underlayment standards and building officials did not actively scrutinize what was used. With the advent of the IBC, this will all change and our customers should be notified of this as soon as possible.

The common 30# is technically classified as Type II asphalt-saturated felt, commonly called No. 30 asphalt felt. The ASTM D-226 requires that it be made with a mat weighing 10 lb. per 100 square feet with 15 lb. of asphalt saturant. The net mass of the saturated sheet is 26 lb. per 100 square feet.

The 40 lb. product is an asphalt-coated base sheet made from a Type I base felt weighing 5.2 lb. per 100 square feet and 7.2 lb. of asphalt saturant. It is then coated with 3.5 lb. of asphalt on each side, resulting in total asphalt content of 14.2 lb. per square. The coated sheet then receives a mineral stabilizer and surfacing. The net mass is 37 lb. per 100 square feet.

It may be argued that two layers of non-ASTM felt is equal to or better than a single layer of ASTM rated felt but that argument may not stand against a claim of non-compliance with code. In an era of rampant construction defect litigation, it probably doesn't make sense for a contractor or supplier to run the risk of replacing entire roofs for the few dollars that may be saved by using an inferior product.