



NEW ASTM STANDARD REPLACES FELT STANDARDS FOR QUALIFICATION OF SYNTHETIC UNDERLAYMENTS

Owens Corning® has been a leader in the roofing industry in technology and innovation for 40 years. After spearheading the effort with ASTM for several years, we were successful in developing an industry standard that stipulates the performance requirements for synthetic underlayments.

When synthetic underlayments were introduced in the market, there was not a standard test method for determining their suitability as a roofing underlayment. Therefore, these products were tested in accordance with the long-standing standards for asphalt felt underlayments - ASTM D226 and ASTM D4869.

These standards were primarily composition driven, and since synthetic underlayments are without asphalt, there are very few performance requirements in D226 and D4869 that translate to the testing of synthetic underlayments.

ASTM D8257 has been established for the sole purpose of determining suitability of synthetic underlayment product for use as steep-slope roofing underlayments. This new standard includes many tests and a level of performance that applies specifically to this category of products - much more so than the older felt standards.

Below is a comparison of the requirements of the often-used felt standards versus ASTM D8257.

REQUIRED TEST	FELT STANDARDS		SYNTHETICS ONLY
	ASTM D226	ASTM D4869	ASTM D8257
Unrolling	YES	YES	YES
Breaking (tensile) Strength	YES	YES	YES
Tearing Strength	NO	YES	YES
Pliability	YES	YES	YES
Liquid Water Transmission	NO	YES	YES
Fastener Pull-Through Resistance	NO	NO	YES
Water Vapor Transmission	NO	NO	YES
Accelerated Weathering	NO	NO	YES
Linear Dimensional Change	NO	NO	YES
Hydrostatic Resistance	NO	NO	YES
Thermal Cycling	NO	NO	YES



As indicated in the table above, the ASTM D8257 testing requirements for synthetic underlayments are much more stringent than any previous mechanically fastened underlayment standard. All synthetic underlayments manufactured by Owens Corning meet the requirements of the new standard.

The next step is ensuring that the new standard is included in upcoming building code editions. Owens Corning has already started the process of proposing that ASTM D8257 be incorporated into the 2024 I-Codes and the 2023 Florida Building Code. This will ensure products that don't meet the stringent requirements of the new standard are not code compliant.