







Chenango Elementary

Binghamton, NY Carlisle FleeceBACK Roofing System over SPF-245 Insulation

FleeceBACK/SPF-245 Steel Deck Assembly

- Sure-White FleeceBACK 100-mil, 115-mil, or 145-mil Membrane
- 2 Factory-Applied SecurTAPE™
- 3 Insulating FAST Adhesive™
- 4 SPF-245 Insulation
- 5 Steel Deck

Carlisle's FleeceBACK EPDM membrane, FAST Adhesive and SPF-245 Insulation utilize BASF technology to provide the ultimate combination in durability, wind uplift resistance, energy efficiency and waterproofing. Carlisle's SPF-245 Insulation is spray applied to fill the low flutes in the steel deck and then a second pass is applied to achieve the desired R-value. This provides a monolithic, seamless blanket of waterproof insulation acting as an air barrier. FAST Adhesive is then applied to the SPF, providing a tenacious mechanical bond between the fleecebacked membrane and SPF. The 100-, 115- or 145-mil FleeceBACK membrane is rolled into the FAST Adhesive, providing excellent resistance to hail, puncture, foot traffic, UV and wind uplift. Additional system features include:

- Eliminates thermal bridging of insulation joints and fasteners for added energy efficiency
- Redundant layers of waterproofing for added security
- 40–50 psi compressive strength, double the industry standard, is very tolerant of foot traffic
- SPF-245 creates air seals with penetrations and walls avoiding moisture infiltration
- Industry leading wind uplift resistance with FM 1-390, a 45% gain over mechanical fasteners
- Maximizes energy efficiency in northern and southern climates with choice of black or white membrane
- Tremendous resistance to hail and puncture damage
- Warranty options from 15, 20, 25 and 30 years







Description

The FleeceBACK Fully-Adhered Roofing System incorporates Sure-Seal® (black) or Sure-White (white-on-black) non-reinforced EPDM membrane laminated to non-woven polyester fleece-backing. The membrane is fully-adhered with FAST Adhesive to Carlisle SPF-245 Insulation that has been spray applied over a steel deck. Adjoining sheets of membrane are spliced together a minimum of 3" (8 cm) using Factory-Applied SecurTAPE™.

Quality Assurance

This roofing system must be installed by a Carlisle Authorized Roofing Applicator and BASF Q1 Applicator in compliance with shop drawings as approved by Carlisle. There must be no deviations made from Carlisle's specifications or the approved shop drawings without the PRIOR WRITTEN APPROVAL of Carlisle. Upon completion of the installation, an inspection will be conducted by a Field Service Representative of Carlisle to ascertain that the roofing system has been installed according to Carlisle's specifications and details.

For specific code approvals achieved with this system, refer to Carlisle's FleeceBACK Code Approval Guide, FM Approval Guide or UL Fire Resistance and Roofing Materials and Systems Directories.

To ensure compliance with Carlisle's minimum warranty requirements all projects must be forwarded to Carlisle for review.

Product Delivery, Storage and Handling

Deliver materials to the job site in the original, unopened containers labeled with the manufacturer's name, brand name and installation instructions.

Jobsite storage temperatures in excess of $90^{\circ}F$ ($32^{\circ}C$) may affect shelf life of curable materials (i.e., FAST Adhesive, SPF-245, splicing cement, sealants, cleaners, primers, SecurTAPE, Pourable Sealer, Pressure-Sensitive Flashing and uncured flashing). Carlisle SPF-245 should be stored between $50-80^{\circ}F$ ($10-27^{\circ}C$).

When liquid adhesives and sealants are exposed to lower temperatures, restore to a minimum of 60°F (16°C) before use. Do not store containers with opened lids due to loss of solvent, which will occur from flash off.

FleeceBACK Membrane should be stored in its original plastic wrap and be covered to protect from moisture. Any moisture absorbed by the fleece backing must be removed by using a wet-vac system, prior to membrane adhesion.

Job Conditions

Do not apply Carlisle SPF-245 Insulation when surface and/or ambient temperatures are below 45°F (7°C). There is no maximum slope restriction for the application of this roofing system. On Sure-White FleeceBACK Roofing Systems, a slope greater than 1/8" per horizontal foot (1 cm/m) is recommended to serve long-term aesthetics.

Existing steel decks must be investigated and any loose or foreign materials must be removed. Coordination between various trades is essential to avoid the use of the new roofing system as a staging platform for other construction.

Warranty

A 10-, 15-, 20-, 25- and 30-year Total System Warranty, with a wind speed coverage up to 80 mph (measured at 10 meters above ground level), is available on commercial projects that utilize all components manufactured or marketed by Carlisle. Upon review by Carlisle, Total System Warranty projects can receive a maximum peak gust wind speed up to 120 mph. Contact Carlisle for specific construction design requirements.

A hail-resistance warranty may be included for up to 1" hail for FleeceBACK 100, up to 2" hail for FleeceBACK 115 and up to 3" hail for FleeceBACK 145.

A limited accidental puncture warranty is also available when using FleeceBACK 115-mil or 145-mil membrane.

Refer to Carlisle's currently published specifications and details for specific requirements concerning the application of this roof.

Roof Deck/Substrate Criteria

The building owner shall provide a proper substrate. The structure shall be sufficient to withstand normal construction loads and live loads.

Defects in the roof deck must be reported and documented to the specifier, general contractor and building owner for assessment. The Carlisle Authorized Roofing Applicator shall not proceed unless the defects are corrected.

The steel deck shall be clean, smooth and dry. When SPF-245 is to be used to fill the flutes of a painted steel deck, the deck must be cleaned using compressed air vacuum equipment, hand brooms or power brooms to remove all loose dirt or surface rust. Grease, oil or other contaminants must also be removed with proper cleaning solutions.

Note: In addition to the above cleaning requirements, galvanized steel decks shall be primed prior to applying sprayed polyurethane foam in accordance with Carlisle requirements.

