



## TYPICAL APPLICATION

- 1 White FleeceBACK 100- or 115-mil membrane
- 2 Selvedge Edge for Seaming
- 3 Insulating FAST™ Adhesive
- 4 Lightweight Concrete Deck

**Lightweight Concrete Deck** - FleeceBACK and FAST Adhesive Systems offer tremendous protection to Lightweight Insulating Concrete decks due to its ability to bond directly to the deck with a two-component FAST Adhesive. FAST Adhesive is a spray-applied, water-blown, VOC-free adhesive that expands into the cellular structure of the concrete deck forming a tenacious bond and redundant waterproofing layer. The fleece provides a venting feature to avoid pressure build-up in any one area. Some of the system features include:

- FM 1-270, 1-180 and 1-90 wind uplift ratings and Dade County approvals
- Elimination of mechanical or base sheet fasteners with low pullout values
- Insulating FAST Adhesive that adds an R-Value of 0.20 to 0.50 per layer and creates a thick layer of urethane adhesive to protect the deck
- Excellent reroofing for decks that have previously been penetrated by fasteners
- Meets ENERGY STAR® guidelines



## Largo Medical Center

Largo, FL  
51,000 Square Feet  
Carlisle FleeceBACK Roofing System  
Lightweight Concrete Deck

# **FLEECEBACK**<sup>®</sup>

## FULLY ADHERED SYSTEM

### Description

The FleeceBACK Adhered Roofing System incorporates Sure-Seal<sup>®</sup> (black) or Sure-White<sup>™</sup> (white-on-black) non-reinforced EPDM or Sure-Weld reinforced TPO membrane laminated to non-woven polyester fleece-backing. The membrane is fully adhered to an acceptable insulation or cellular or perlite lightweight insulating concrete decking with a two-component spray-applied, low-rise FAST Adhesive. Insulation, if used, can either be adhered to the substrate with the FAST Adhesive or fastened to the lightweight insulating concrete with an acceptable insulation fastener and plate. Adjoining sheets of membrane are spliced together a minimum of 3 inches (8 cm) using Factory Applied TAPE (FAT) on EPDM or a 1.5" wide hot air weld on TPO.

### Quality Assurance

This roofing system must be installed by a Carlisle Authorized Roofing 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 the roofing system has been installed according to Carlisle's specifications and details.

This roofing system meets Underwriters Laboratories (UL) Class A. In addition, when the membrane is adhered directly to the lightweight insulating concrete, a Factory Mutual (FM) 1-90, 1-180, or 1-270 rating can be achieved. 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.

Job site storage temperatures in excess of 90°F (32°C) may affect shelf life of curable materials (i.e., FAST Adhesive - Parts A & B, splicing cement, sealants, cleaners, primers, SecurTAPE, Pourable Sealer, Pressure Sensitive Flashing and uncured flashing).

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.

Insulation and underlayment must be stored so it is kept dry and is protected from the elements. Store insulation on a skid and completely cover with a breathable material such as tarp or canvas. If the insulation is lightweight, it should be weighted to prevent possible wind damage.

### Job Conditions

Do not apply Sure-Seal FAST Adhesive when surface and/or ambient temperatures are below 25°F (-4°C) (heated rig). When temperatures are between 25°F (-4°C) and 70°F (21°C), the addition of catalyst to FAST Adhesive may be required to speed set-up time.

There is no maximum slope restriction for the application of this roofing system. On White FleeceBACK Roofing Systems, a slope greater than 1/8 inch per horizontal foot (1 cm/m) is recommended to provide long-term aesthetics.

On retrofit-recover projects, existing roofing material must be investigated and wet material must be removed.

The use of a vapor retarder to protect insulation and reduce moisture accumulation within an insulated roofing assembly should be investigated by the specifier. Consult the latest publications by ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.) and NRCA (National Roofing Contractors Association) for specific information. If a vapor retarder is used and insulation is to be secured with FAST Adhesive, use Carlisle's 725TR Vapor Retarder.

Coordination between various trades is essential to avoid unnecessary rooftop traffic over sections of the roof and to prevent damage to the membrane.

### Warranty

A 5- or 10-year Membrane System Warranty, with a wind speed coverage up to 80 mph (measured at 10 meters above ground level), is available.

A 10-, 15- or 20-year Total Roofing System Warranty is available on commercial projects which 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 and up to 2" hail for FleeceBACK 115.

A limited accidental puncture warranty is also available when using FleeceBACK 115.

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

### Roof Deck/Substrate Criteria

A proper substrate shall be provided by the building owner. 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. Vented steel decking with a maximum 1/2% opening can be specified for cellular decks. The Carlisle Authorized Roofing Applicator shall not proceed unless the defects are corrected.

When fasteners are to be used for insulation attachment, refer to Part I Design Criteria for acceptable fasteners and minimum fastener pullout requirements.

Prior to direct application over new lightweight insulation concrete, a cure time of a minimum 48 hours should be followed. Consult with the lightweight insulation concrete manufacturer for verifying any additional drying time.

When using FAST Adhesive for membrane installation directly over a lightweight concrete roof deck (new or tear-off), the deck surface must be cleaned using compressed air, vacuum equipment or hand / power brooms to remove dust, loose dirt or debris. If excessive dust or dirt is present, a primer may be required prior to application of the adhesive. Contact Carlisle for specific primer requirements.

### Investing in Roofing Solutions for Over 45 Years

800-4-SYNTEC • P.O. Box 7000 • Carlisle, PA 17013 • Fax: 717-245-7053 • [www.carlisle-syntec.com](http://www.carlisle-syntec.com)  
Carlisle, FleeceBACK, Sure-Seal, Sure-White, FAT and FAST are trademarks of Carlisle. ENERGY STAR is a registered trademark owned by the US government.  
REPRINT CODE: 600786 - FB-Lightweight Concrete Deck Fully Adhered System Sheet - 122209 © 2009 Carlisle.

  
Carlisle SynTec