CARLISLE'S

FleeceBACK® EPDM

PLAZA WATERPROOFING SYSTEM

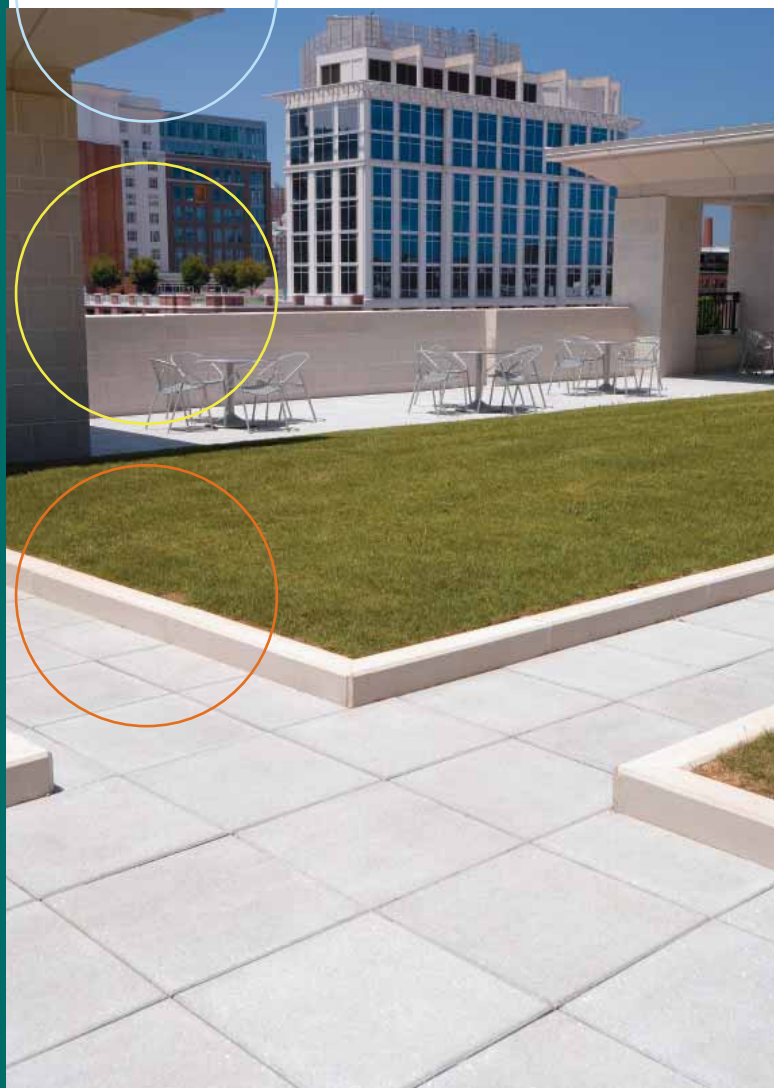
VEGETATIVE ROOFS ◯ PLAZA DECKS ◯ INVERTED ROOF SYSTEMS

FACTS AND FUNCTION

FleeceBACK EPDM Plaza Waterproofing System:

Carlisle's Plaza Waterproofing System is built on two high performance waterproofing options. The first features Carlisle's FleeceBACK 145-mil membrane installed with two component FAST Adhesive. The second option features our AFX Plus EPDM cap sheet and Modified base sheet set in Cold Applied Adhesive for a two-ply system.

In addition to the high performance EPDM waterproofing systems Carlisle offers comprehensive design options above the membrane including roof gardens, architectural concrete pavers, interlocking rubber pavers and stormwater retention ballasted systems in conjuction with insulation and drainage board.



Fleece adds toughness and durability:

- Greater Dynamic Puncture Strength than Modified Bitumen (ASTM D5635-04a)
- Wall membrane and flashings can be exposed to UV light indefinitely

Ease of installation:

- Materials can be transported in elevators or up stairs
- Factory Applied Tape assures quality while easing application
- System is watertight from the moment it is installed

Code Compliance/Environmental Benefits:

- Kettles are not needed to install membrane
- Elimination of screw gun and hammer drill noise
- FAST Adhesive and Cold Applied Adhesive eliminates VOC concerns

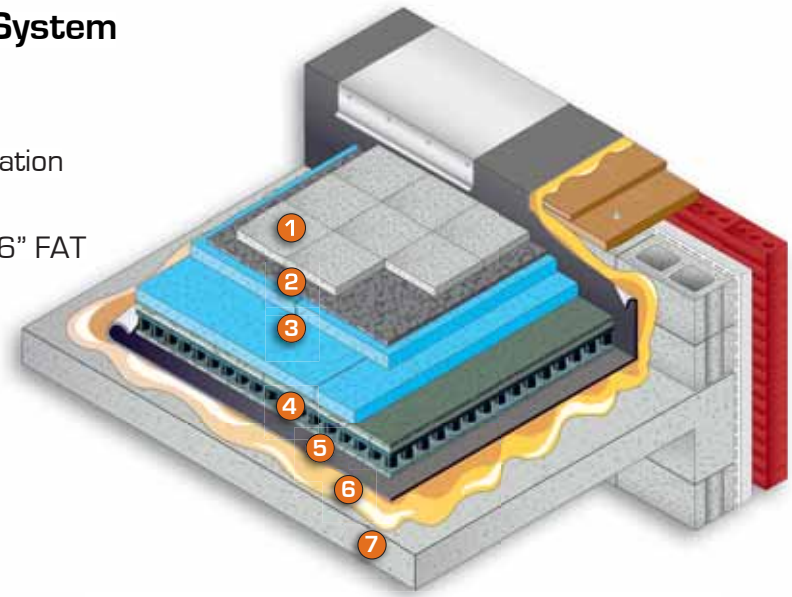
Warranty: Membrane Waterproofing Total System Warranties and Overburden Warranties - 10, 15 and 20* years. Plant Warranties up to 24 months.

*Enhancements and restrictions apply for 20-year warranties.

CARLISLE'S ARCHITECTURAL PAVER SYSTEMS

FleeceBACK 145-Mil Single-Ply System

1. Concrete Pavers
2. HP Protective Mat
3. 2 Layers of Extruded Polystyrene Insulation
4. 9800 Drainage Board
5. FleeceBACK 145-mil Membrane with 6" FAT
   See Detail A for splicing
6. FAST Adhesive
7. Concrete Deck

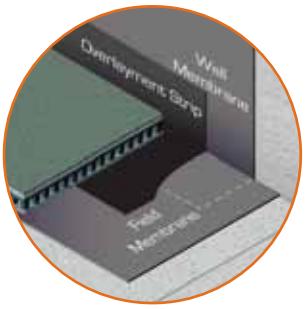


Detail A

Additional 6" Pressure Sensitive Overlayment Strip overlaid at FAT splice – centrally aligned at upper edge

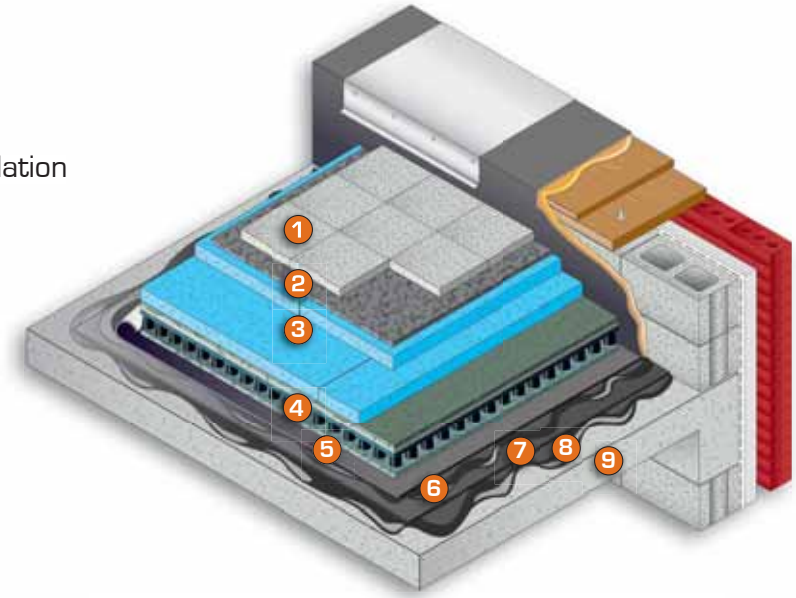
Detail B

Additional 9" Pressure Sensitive Overlayment Strip, extend 3" vertical on wall (fasteners not showing)



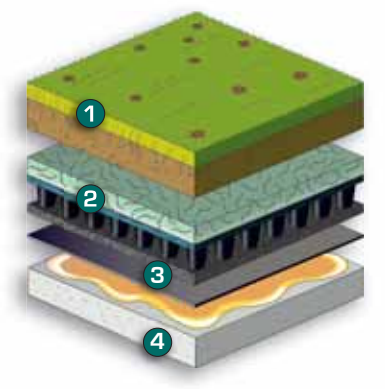
AFX Plus Two-Ply System

1. Concrete Pavers
2. HP Protective Mat
3. 2 Layers of Extruded Polystyrene Insulation
4. 9800 Drainage Board
5. AFX-Plus FleeceBACK Membrane
   See Detail A for splicing
   See Detail B for walls
6. Cold Applied Adhesive
7. Modified Base Sheet
8. Cold Applied Adhesive
9. Concrete Deck



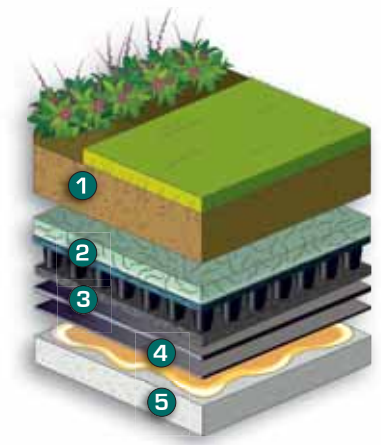
CARLISLE'S TRADITIONAL ROOF GARDEN ASSEMBLIES

Carlisle offers a broad array of traditional Roof Garden Systems that incorporate our FleeceBACK waterproofing options with a full line of accessories to provide a high performance system that carry up to a 20-year warranty. Carlisle Engineered Growth media is designed for optimum water retention, and our vegetated Sedum Tiles offer instantaneous plant coverage with 12 different varietes of sedum..



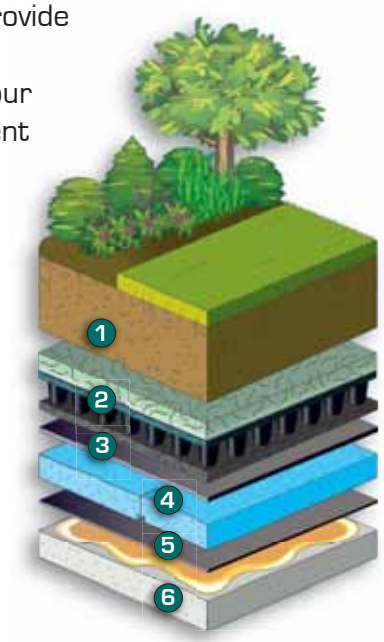
Shallow Assembly

1. Growth Media and vegetation
2. MiraDRAIN G4
3. Sure-Seal® EPDM FleeceBACK Fully-Adhered Membrane
4. Concrete Deck



Medium Assembly

1. Growth Media and vegetation
2. MiraDRAIN G4
3. 40-mil Root Barrier
4. Sure-Seal EPDM FleeceBACK Fully-Adhered Membrane
5. Concrete Deck



Deep Assembly

1. Growth Media and vegetation
2. MiraDRAIN G4
3. 40-mil Root Barrier
4. Extruded Polystyrene Insulation with Drainage Channels
5. Sure-Seal EPDM FleeceBACK Fully-Adhered Membrane
6. Concrete Deck

ROOF GARDEN WARRANTIES

Carlisle Roof Garden Overburden Warranty

Carlisle offers up to a 20-year* overburden removal warranty covering the removal and replacement of the roof garden components if there is a need to investigate for a leak.

*Enhancements and restrictions apply.

Carlisle Roof Garden Vegetation Warranty

Carlisle offers a 2-year vegetation warranty to ensure the proper establishment of plants and a minimum 50% coverage of vegetation within year one and 80% coverage by year two.

CARLISLE'S GREENGRID ROOF GARDEN SYSTEM

Carlisle GreenGrid Roof Garden System offers distinct advantages over more complex systems with its simplicity in design, pre-planted modules and moveable modular features.

Benefits:

- Single-source responsibility - roofing contractors can install both the waterproofing and the GreenGrid in one installation
- No planting on the roof - trays are pre-planted before arriving on the job site, including root barrier, growth media and plants
- Easy to handle and fast to install
- Trays are easily moved for roof repair
- Building owners recieve single-source warranty coverage

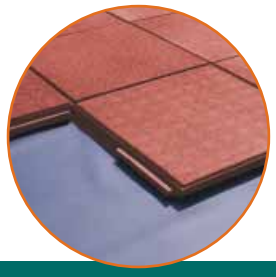
Features: Standard GreenGrid

- Tray depth: Four inches
- Weight: 23 psf wet
- Tray sizes: 2' x 4', 2' x 2' (fill product) and 40" x 40" (larger designs)
- Vegetation: Sedum species

Features: Special Order

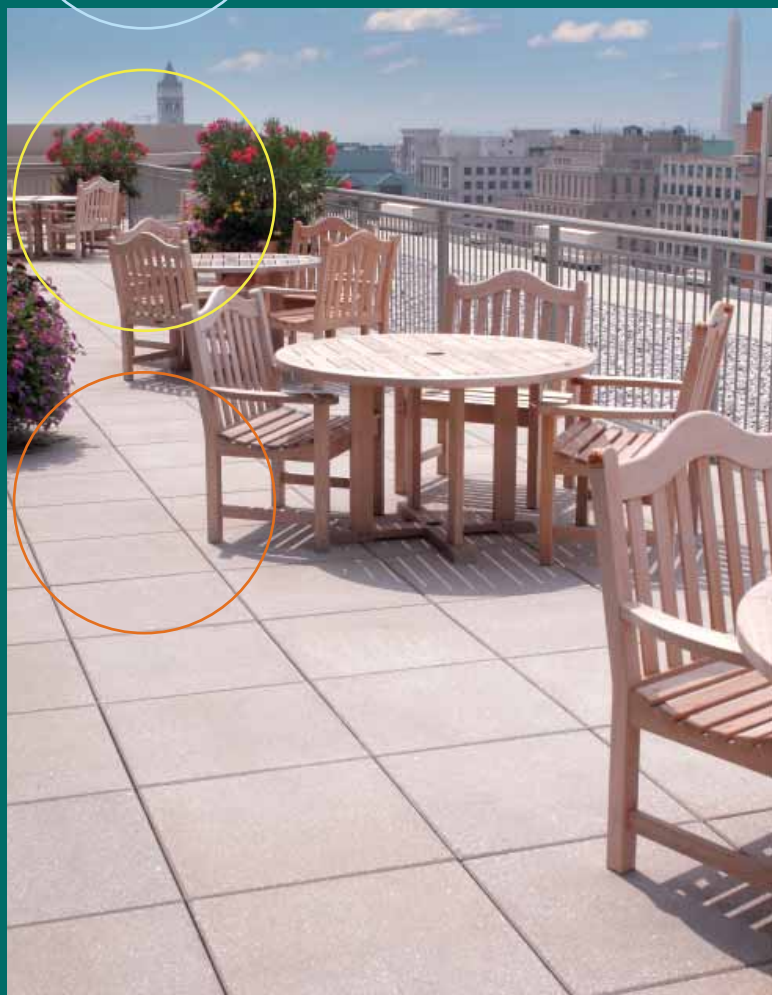
- Tray depth: Eight inches
- Weight: 50 psf wet
- Tray size: 2' x 4', 2' x 2'
- Vegetation: Sedum and other perennials

Concrete Architectural Paver System: Concrete pavers are an attractive and functional choice for plaza decks, terraces and as part of an integrated Roof Garden assembly. With the growing demand for vegetative roof systems, concrete pavers offer a decorative design component for walkways, viewing areas and sitting areas. Standard and Pedestal Paver options are available along with options for high wind uplift situations and or cool roof requirements. Typical installations start with a Fully Adhered FleeceBACK EPDM membrane direct to the concrete deck followed by Carlisle 9800 Drainage Board, Carlisle Extruded Insulation, HP Protective Mat and either standard or pedestal concrete architectural pavers.



Interlocking Rubber Paver System: Carlisle's Rubber Pavers are manufactured from recycled tires to create a resilient, shock absorbing, weather resistant traffic surface. Carlisle's 2' x 2' Rubber Paver System utilizes 145-mil FleeceBACK EPDM or 105-mil FleeceBACK AFX EPDM Cap Sheet with Carlisle's Modified Base Sheet. The 145-mil FleeceBACK membrane can be fully adhered directly to the concrete deck using FAST Adhesive or the 105-mil AFX EPDM Cap Sheet and

ABOUT CARLISLE PAVERS



Modified Base Sheet can be fully adhered using Carlisle's Cold Applied Adhesive. Both EPDM sheets feature Carlisle's FAT™ technology (Factory Applied Tape).

The Rubber Pavers are then loose-laid and interlocked over the FleeceBACK membrane without the need for a slip sheet and provide multi-directional drainage. Available colors include Terra Cotta and Black.

This unique system is ideal for rooftop terraces or in conjunction with Roof Gardens as walkways creating a very comfortable and aesthetically pleasing environment. Rubber pavers are not recommended for applications that may be subject to items with small points such as chairs with narrow legs.

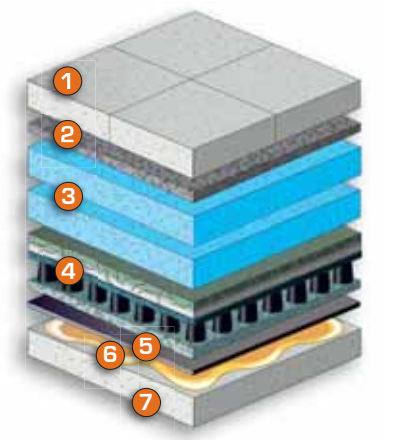
Stone Ballasted System: River washed stone ballast provides a uniform and aesthetically pleasing natural look while delivering excellent hail damage resistance as an economic roof cover. The system can be enhanced with Carlisle's Storm Water Retention System that can retain up to 65% of the rain water from a 1" rain helping building owners reduce land requirements and achieve up to 2 LEED points. The Storm Water Retention components include 200 or 300HV Protection Course, GR9200 Drainage Board, and Moisture Retention Mat which are installed above the FleeceBACK membrane.

WARRANTY OPTIONS

Comprehensive Warranty Options for the Complete Package:

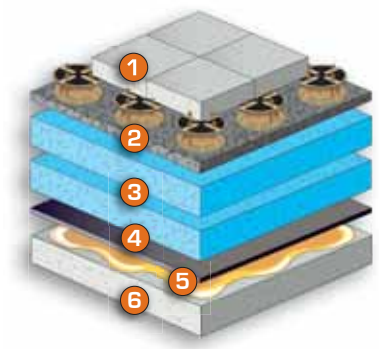
- Standard 10, 15 or 20 Year Roofing System Warranty (excludes materials above the roofing membrane)
- Optional Limited Warranties on components above the roofing membrane
    - Warranty that Insulation will retain 80% of it's R-Value
    - Coverage against cracking or splitting of Concrete Pavers
    - Overburden Removal for Insulation and Pavers
    - Overburden Removal for Traditional and GreenGrid Roof Gardens
    - Vegetation coverage of 80% minimum in 24 months

TYPICAL PLAZA WATERPROOFING SYSTEMS



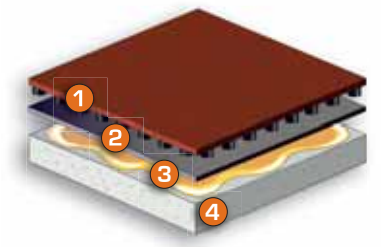
Concrete Pavers

1. Concrete Pavers
2. HP Protective Mat
3. Extruded Insulation
4. 9800 Drainage Board
5. FB145-mil w/ 6" FAT
6. FAST Adhesive
7. Concrete Deck



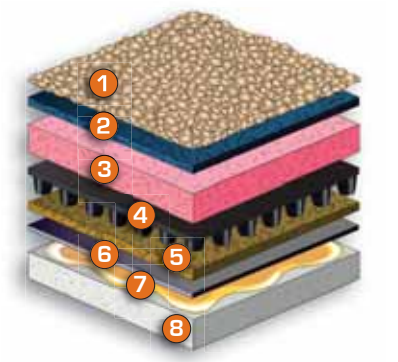
Pedestal Pavers

1. Concrete Pedestal Pavers
2. HP Protective Mat
3. Extruded Insulation
4. FB145-mil w/ 6" FAT
5. FAST Adhesive
6. Sloped Concrete Deck



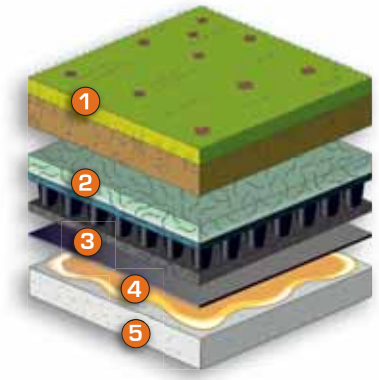
Rubber Interlocking Pavers

1. Rubber Pavers
2. FB145-mil w/ 6" FAT
3. FAST Adhesive
4. Concrete Deck



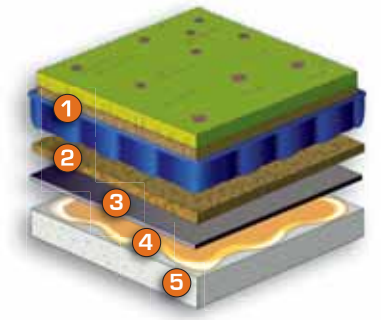
Ballast Stormwater Retention

1. River Washed Stone
2. Moisture Retention Mat
3. Expanded Insulation
4. GR 9200 Drainage Board
5. 200 or 300HV Mat
6. FB145-mil w/ 6" FAT
7. FAST Adhesive
8. Concrete Deck



Traditional Roof Garden

1. 2½-4" Growth Media
2. MiraDRAIN G4
3. FB145-mil w/ 6" FAT
4. FAST Adhesive
5. Concrete Deck



Pre-Planted Roof Garden

1. Pre-planted Growth Media and Green Grid Tray
2. 200HV Mat
3. FB145-mil w/ 6" FAT
4. FAST Adhesive
5. Concrete Deck

Note: FB AFX EPDM Cap Sheet with Modified Base Sheet set in Cold Adhesive can be substituted for FB 145-mil and FAST Adhesive as the waterproofing membrane.

Carlisle, FleeceBACK, FAST, Sure-Seal and FAT are trademarks of Carlisle. © 2009 Carlisle. 111709

604767 - FleeceBACK EPDM Plaza Waterproofing System Brochure

Carlisle SynTec