G. The following table identifies the acceptable roof decks/substrates and the minimum underlayment requirements:

Roof Deck & Substrate Criteria for Adhered Roofing Systems

Acceptable Roof Deck/Substrate	FleeceBACK EPDM Membrane	FleeceBACK TPO Membrane	FleeceBACK PVC / KEE HP PVC Membrane
NEW CONSTRUCTION			
Steel (min. 22 gauge)(1)(2)	Insulation	Insulation	Insulation
Structural Concrete (min. 3000 psi) or Gypsum	Direct Application	Direct Application	Direct Application
Plywood (min. 15/32" thick) or Oriented Strand Board (min. 7/16" thick)	Direct Application	Direct Application	Direct Application
Wood Planks (minimum 3/4" thick)	Direct Application	Direct Application	Direct Application
Gypsum and Fibrous Cement	Insulation	Direct Application	Direct Application
Lightweight Insulating Concrete	Direct Application (3)	Direct Application (3)	Direct Application (3)
RETROFIT / NO TEAR-OFF			
Existing Smooth Surface BUR (9) or Mineral Surface Cap Sheet	Direct Application (4)(10)	Direct Application (10)	Direct Application (10)
Gravel Surfaced Asphaltic BUR (5)	Insulation	Insulation	Insulation
Coal Tar Pitch (5)(6)	Insulation	Insulation	Insulation
Modified Bitumen	Direct Application (8)(10)	Direct Application (8)(10)	Direct Application (8)(10)
Existing Single-Ply(7)	Insulation	Insulation	Insulation
RETROFIT / TEAR-OFF			
Existing roof material removed (regardless of deck type)	Insulation	Insulation	Insulation

Notes:

(1) Local codes must be consulted regarding thermal barrier requirements.

(2) Mechanically Fastened Systems cannot be specified on steel decks less than 22 gauge or for corrugated steel decks, regardless of gauge (Refer to attachment 2).

(3) FleeceBACK Adhered Roofing System may be specified directly over a new approved cellular or perlite lightweight insulating concrete substrate, refer to Attachment I for additional information.

(4) FleeceBACK EPDM Adhered Systems (Sure-Seal black membrane) may be applied directly to the substrate providing asphalt on existing smooth surfaced built-up roof has a softening point above 185°F (85°C).

(5) Loose gravel must be removed to avoid moisture entrapment.

(6) Existing coal tar could drip back into the building, especially when new insulation does not provide sufficient thermal value to prevent the surface of the coal tar from softening.

(7) An approved mechanically fastened insulation/underlayment is required over existing ballasted single-ply systems and PVC roofing systems of any type. For Direct Application Carlisle may be contacted for required substrate preparation.

(8) Direct application permitted over smooth or granular surfaced modified bitumen. Membrane shall be positioned with length of sheets parallel to modified bitumen field seams. Effort should be made to ensure seams of the FleeceBACK system are parallel to existing seams, when new splices run perpendicular the field seam must be carefully inspected especially at intersections.

(9) Existing Type III or IV smooth asphalt BUR Only

(10) Possible staining/discoloration of the white membrane may result when installing this system directly over existing smooth surfaced BUR or modified bitumen, especially along the selvage edge where fleece backing is not present. If aesthetics are critical, an approved insulation should be specified beneath the membrane