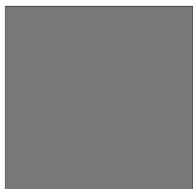
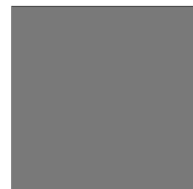
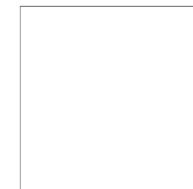
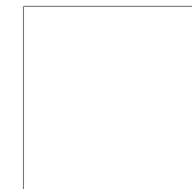
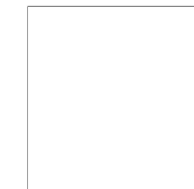
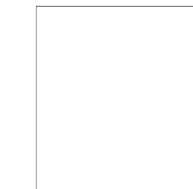
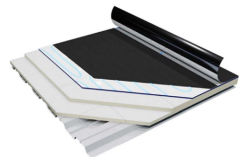
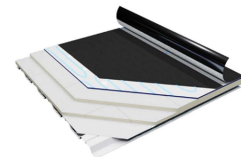
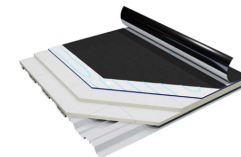
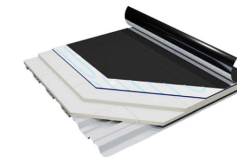
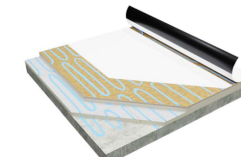
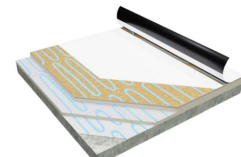
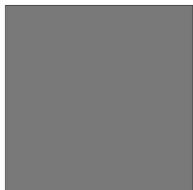
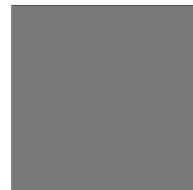
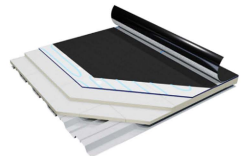
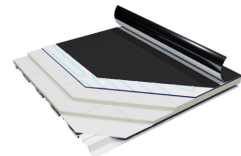
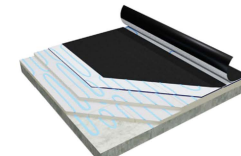


VSH-Rated Sure-Seal® & Sure-White® FleeceBACK® EPDM Roof Families

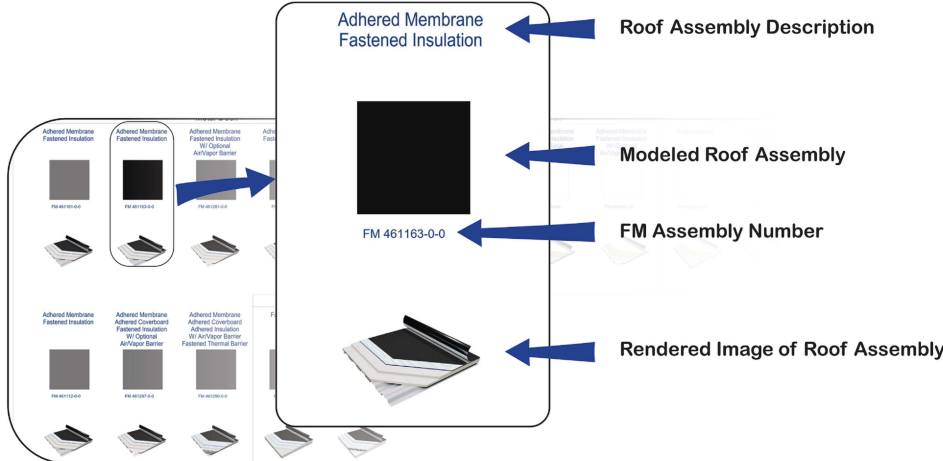
Sure-Seal® FleeceBACK EPDM Assemblies with EcoStorm™ Coverboard						Sure-White® FleeceBACK® EPDM Assemblies with StormBase® Coverboard/Polyiso Composite			
Metal Deck						Metal Deck		Concrete Deck	
Adhered Membrane Fastened Insulation	Adhered Membrane Fastened Insulation	Adhered Membrane Fastened Insulation W/ Optional Air/Vapor Barrier	Adhered Membrane Fastened Insulation	Adhered Membrane Fastened Insulation	Adhered Membrane Fastened Insulation	Adhered Membrane Fastened Insulation W/ Optional Air/Vapor Barrier	Adhered Membrane Fastened Insulation W/ Optional Air/Vapor Barrier	Fully Adhered	Fully Adhered W/ Air & Vapor Barrier
									
FM 461161-0-0	FM 461163-0-0	FM 461281-0-0	FM 461165-0-0	FM 461166-0-0	FM 439043-0-0	FM 439045-0-0	FM 439066-0-0	FM 439021-0-0	FM 439023-0-0
									
Concrete Deck									
Adhered Membrane Fastened Insulation	Adhered Membrane Adhered Coverboard Fastened Insulation W/ Optional Air/Vapor Barrier	Adhered Membrane Adhered Coverboard Adhered Insulation W/ Air/Vapor Barrier Fastened Thermal Barrier	Fully Adhered	Fully Adhered w/ Torch-Down Air & Vapor Barrier					
									
FM 461112-0-0	FM 461287-0-0	FM 461290-0-0	FM 461264-0-0	FM 461272-0-0					
									

EPDM VSH Rated Roof Type Schedule				
Type	FM Global Rating Number	Wind Pressure Uplift Rating	Type Comments	Manufacturer
FleeceBACK EPDM - FM 461272-0-0	461272-0-0	-255	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min./max. adhesive application rates and minimum insulation thicknesses	Carlisle SynTec Systems
Sure-White FleeceBACK EPDM - FM 439043-0-0	439043-0-0	-150	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min. Insulation thicknesses	Carlisle SynTec Systems
Sure-White FleeceBACK EPDM - FM 439045-0-0	439045-0-0	-270	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min. Insulation thicknesses	Carlisle SynTec Systems
Sure-White FleeceBACK EPDM - FM 439066-0-0	439066-0-0	-90	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min./max. adhesive application rates and minimum insulation thicknesses	Carlisle SynTec Systems
Sure-White FleeceBACK EPDM - FM 439021-0-0	439021-0-0	-270	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min./max. adhesive application rates and minimum insulation thicknesses	Carlisle SynTec Systems
Sure-White FleeceBACK EPDM - FM 439023-0-0	439023-0-0	-255	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min./max. adhesive application rates and minimum insulation thicknesses	Carlisle SynTec Systems
FleeceBACK EPDM - FM 461264-0-0	461264-0-0	-270	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min./max. adhesive application rates and minimum insulation thicknesses	Carlisle SynTec Systems
FleeceBACK EPDM - FM 461290-0-0	461290-0-0	-90	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min./max. adhesive application rates, min. coverboard/thermal barrier thicknesses, and minimum insulation thicknesses	Carlisle SynTec Systems
FleeceBACK EPDM - FM 461287-0-0	461287-0-0	-90	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min./max. adhesive application rates, min. coverboard thicknesses, and minimum insulation thicknesses	Carlisle SynTec Systems
FleeceBACK EPDM - FM 461112-0-0	461112-0-0	-270	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min. coverboard thickness.	Carlisle SynTec Systems
FleeceBACK EPDM - FM 461166-0-0	461166-0-0	-225	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min. coverboard thickness.	Carlisle SynTec Systems
FleeceBACK EPDM - FM 461165-0-0	461165-0-0	-165	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min. coverboard thickness.	Carlisle SynTec Systems
FleeceBACK EPDM - FM 461281-0-0	461281-0-0	-90	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min. coverboard thickness.	Carlisle SynTec Systems
FleeceBACK EPDM - FM 461163-0-0	461163-0-0	-120	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min. coverboard thickness.	Carlisle SynTec Systems
FleeceBACK EPDM - FM 461161-0-0	461161-0-0	-90	See Carlisle VSH Compliant Roofing Systems Code Approval Guide for min. coverboard thickness.	Carlisle SynTec Systems



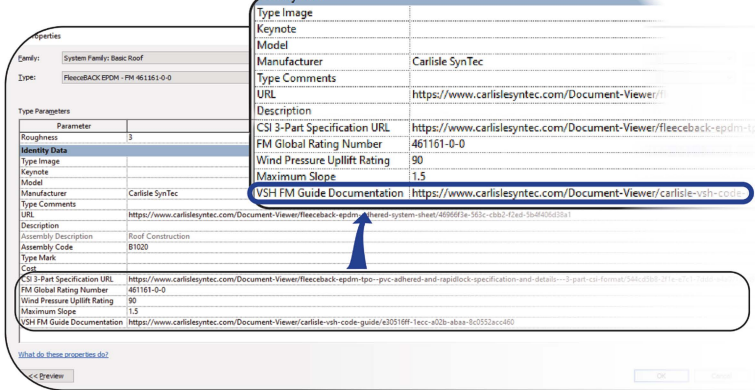
How to Use Very Severe Hail (VSH) Rated FM-Based Roof Assemblies:

Each Roof Assembly can be identified by the following group of elements. Select (single-click) a modeled roof assembly...



Notes About Roof Type Properties:

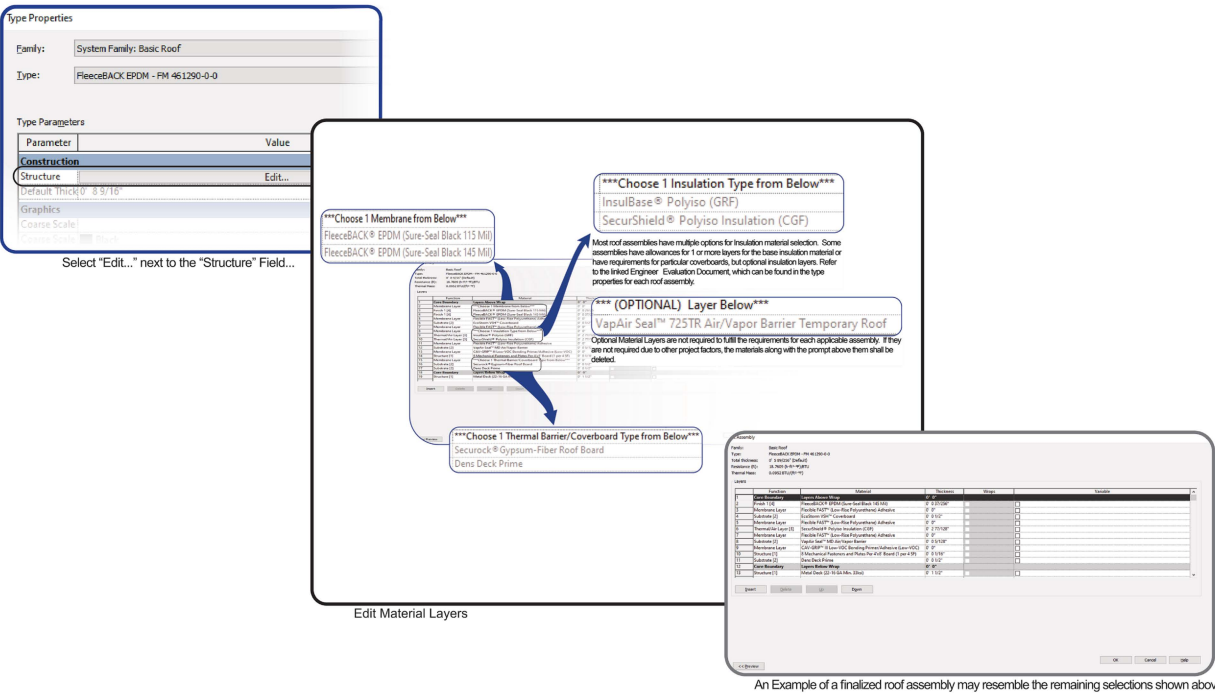
Upon opening the **Type Properties** of the selected roof assembly, several Identity Data Parameters are available. The assemblies provided vary to provide a options in terms of design pressures/wind-uplift rating, membrane types, adhesives, coverboards, roof deck types, etc, but **are not exhaustive**. For additional compliant assembly options, please refer to the linked documentation, which can be found in the **Type Properties** of every roof assembly, as shown in the diagram below:



All Assemblies included within these files have been tested according to FM 4470 for compliance to VSH requirements.

Notes Regarding Assembly Material Editing:

In many cases, each roof assembly will contain multiples materials for a particular function of the roof assembly. Where this occurs, prompts, listed as materials above a grouping of multiple materials, are included within the assembly as can be seen in the sample illustration below. Delete extraneous material layers not desired within the assembly. One-of-a-kind materials, ie: Flexible Fast, Mechanical Fasteners, and Dens Deck Prime, are required materials for this particular roof assembly example. Do not delete them.



Once all the desired materials have been finalized, these prompt materials shall be deleted from the assembly(ies), to avoid conflicts with other functions of Revit, ie: schedules that contain roof assembly material takeoff values.

