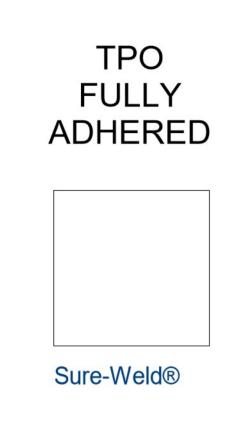
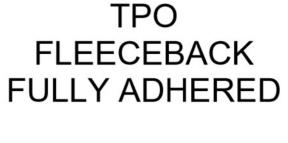
# Sure-Weld®, Sure-Weld SAT<sup>TM</sup>, FleeceBACK®, & FleeceBACK® RLTM TPO Roof Families







TPO INDUCTION **WELD** 





**HOOK & LOOP** 

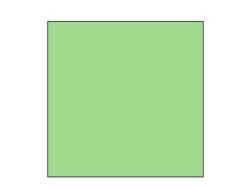
ATTACHED

**FLEECE** 

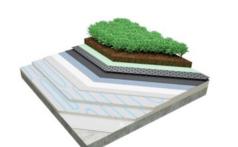
TPO



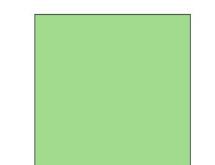
TPO VEGETATED **ROOF TRADITIONAL** 



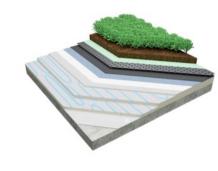
**Traditional Roof Garden** With Sure-Weld® **TPO Membrane** 



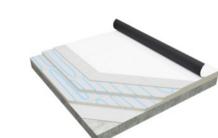
FLEECE TPO **VEGETATED ROOF TRADITIONAL** 



Traditional Roof Garden With FleeceBACK® **TPO Membrane** 







Sure-Weld®

SAT™ TPO



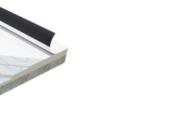
Sure-Weld®



Sure-Weld®



FleeceBACK® TPO











#### **Revit Model Families Notes**

The Revit model families provided contain multiple product selections for: Membranes

- Membrane Bonding Adhesives
- Coverboards
- Insulations
- Growth Media Depths (Roof Garden Assemblies Only)

Please select only one product for each of these layers to use and remove/delete the other products. This allows the customization of your roof assembly to meet your product selections.

#### Choosing a Carlisle Roof Assembly Family for your project

- Navigate to the Roof Assembly which you would like to use.
- Click on the Family or square shown above the Isometric of the roof assembly.
- Copy the family to your clipboard by selecting Ctrl + C on your keyboard.
- Navigate to your project file you wish to import the family. Paste the family from your clipboard by selecting Ctrl + V on your keyboard.
- When creating a new roof, choose the Carlisle Roof Assembly from your choices of Roof Families.

### **Editing the Family by Product Selection**

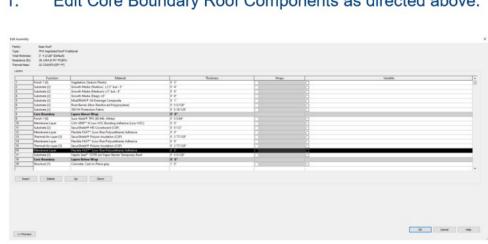
- Select the Family you wish to use, Adhered Assembly, Mechanically Fastened, etc.
- Import the Carlisle Roof Assembly Family into your project.
- In your project file, select the Carlisle Roof Assembly Family and double click, this opens the Family Property Box.
- Open the Edit Construction tab within the Type Parameters Box. Select the membrane(s) you are not using for your project from the list and click on it.
- This highlights the selection. Click on Delete from the action buttons at the bottom of the
- NOTE: This action will need to be repeated for each membrane deletion.

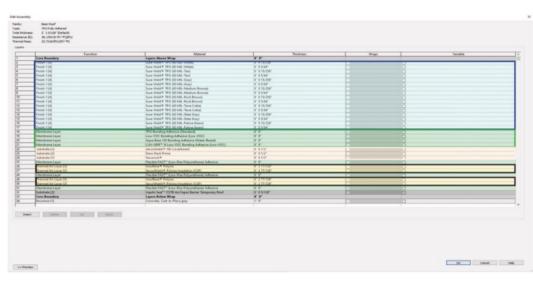
Repeat Step 5-7 for Membrane Bonding Adhesive, Coverboards, Insulations and Growth

## **Traditional Roof Garden Families Selection Notes:**

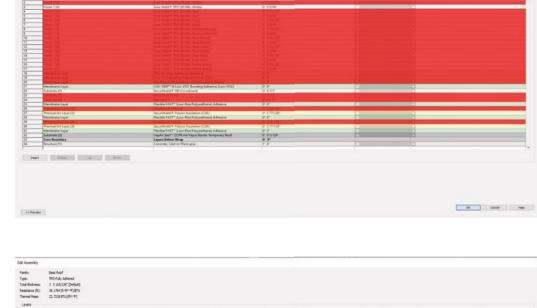
1. Edit Core Boundary Roof Components as directed above.

Media Depth, if using a Roof Garden Assembly Family.





Delete Layers to match desired Assembly



Edit Assembly								
Resistance (R): Thermal Mass:								
Layers	Function	Material		Tricines	Wraps	-	Variable	_
1	Core Boundary	Layers Above Wrap	0. 6.	Trackings.	Tireys		18-804	_
2	Finish 1 [4]	Sure-Weld # TPO (80 MIL-White)	0' 05/64"					$\overline{}$
3	Membrane Layer	CAV-GRIP* III Low-VOC Bonding Adhesive (Low-VOC)	0.0					
4	Substrate [2]	SecurShield® HD Coverboard	0.075			ň		
	Membrane Layer	Flexible FAST" (Low-Fise Polyurethane) Adhesive	0.0			- i		
	Thermal/Air Layer [3]	SecurShield® Polyisa Insulation (CGF)	0" 2.77/128"			- i		
7	Membrane Layer	Flexible FAST** (I, ow-Rise Polyunethane) Adhesive	0.0			ň		
8	Thesmal/Air Laver [3]	SecurShield® Polyiso Insulation (CGF)	0' 2.77/128"					
9	Membrane Layer	Flexible FAST* (Low-Rise Polyurethane) Adhesive	0.0		_			_
	Substrate [2]	VapAir Seal** 725TR Ais/Vapor Barrier Temporary Roof	0" 05/128"					
11	Core Boundary	Layers Below Wrap	0. 0.					
12	Structure [1]	Concrete, Cest-in-Place gray	1.0.					$\overline{}$
part	Quide (g) Copm							

## RapidLock (RL™) System Attachment & **Roof Family Material Selection Notes:**

- Hook substrate must be positioned as the uppermost layer of the roofing assembly
- prior to installation of FleeceBACK® RapidLock (RL™) TPO Membrane. Where coverboard is required/desired, SecurShield® HD RL™ Coverboard shall be used above 2 layers of SecurShield® or InsulBase® Polyiso. SecurShield® HD RL™ Coverboard & subsequent layers of insulation shall be secured by either plates & fasteners or Flexible FAST™ (Low-Rise Polyurethane) Adhesive.
- Where coverboard is not required, SecurShield® HD RL™ shall be omitted in lieu of 2 layers of polyiso insulation, of which SecurShield® RL™ Polyiso or InsulBase® RL™ Polyiso is the topmost layer prior to FleeceBACK® RapidLock (RL™) TPO Membrane . The base layer shall not contain a hook substrate and shall be either SecurShield® Polyiso or Insulbase® Polyiso, respectively. Insulation layers shall be secured by either use of plates & fasteners or Flexible FAST™
- All layers of Flexible FAST™ (Low-Rise Polyurethane) Adhesive shall be omitted
- when utilizing plates and fasteners as insulation/coverboard securement method. SecurShield® HD RL™ Coverboard shall be used in projects where InsulFoam
- EPS is selected as the primary insulating roof board.

## InsulFoam EPS Insulation Roof Family **Material Selection Notes:**

- InsulFoam EPS is not compatible with solvent-based adhesives. If solvent based adhesives are to be used, a coverboard must separate the membrane adhesive from the EPS insulation.
- Flexible FAST™ (Low-Rise Polyurethane) Adhesive is compatible for direct attachment in Fully adhered systems between: VapAir Seal MD/ 725TR air and vapor barrier (where used) and lower
  - Structural Deck and lower insulation layers where air/vapor barrier is
  - not utilized
  - **EPS Insulation layers** Coverboards and insulation
  - FleeceBACK® membranes (excluding FleeceBACK® RL™ membranes) and coverboards/EPS insulation.
- Coverboards must be used where InsulFoam EPS is the primary insulating roof board and Induction Welding is the membrane attachment method.
- Coverboards must be selected when selecting InsulFoam EPS Insulation for use in Self Adhering (SAT™) Membrane Systems.

#### Fully Adhered RapidLock (RL™) System Example: With RL™ Coverboard and Standard Polviso Insulation

Basic Roof FleeceBACK® RL™ ( doness: 1' 5 219/256' (Defa cc (R): 39.1764 (h·ft²·Ψ)/8 Mass: 22.7218 BTU/(ft²·Ψ	ult)				
Function		Material	Thickness	Wraps	Varia ^
Core Boundary		Layers Above Wrap	0. 0.		
Finish 1 [4]		FleeceBACK® RL™ TPO (115 Mil-White)	0' 0 29/256"		
Substrate [2]		SecurShield® HD RL™ Coverboard (CGF)	0' 0 1/2"		
Thermal/Air Layer [3]		SecurShield® Polyiso Insulation (CGF)	0' 2 77/128"		5
Membrane Layer		Flexible FAST™ (Low-Rise Polyurethane) Adhesive	0' 0"		
Thermal/Air Layer [3]		SecurShield® Polyiso Insulation (CGF)	0' 2 77/128"		3
Membrane Layer		Flexible FAST™ (Low-Rise Polyurethane) Adhesive	0, 0,		
Substrate [2]		VapAir Seal™ 725TR Air/Vapor Barrier Temporary Roof	0' 0 5/128"		
Core Boundary		Layers Below Wrap	0. 0.		
Structure [1]		Concrete, Cast-in-Place gray	1. 0.		_ ~
					>
Insert Delete	Up	Down			

# Mechanically Attached RapidLock (RL™) System Example:

		Function	II a managaman a Atau	Material	Thickness	Wraps	Var	^
1	Core Boundary		Layers Above Wrap		0. 0.			
2	Finish 1 [4]		FleeceBACK® RL™ T	PO (115 Mil-White)	0' 0 29/256"			
3	Membrane Laye	r	Mechanical Fastener	and Plate (Select Based on Project Design)	0. 0			
4	Substrate [2]		SecurShield® HD RL	Coverboard (CGF)	0' 0 1/2"			
5	Thermal/Air Lay	er [3]	InsulBase® Polyiso (	GRF)	0' 2 77/128"			
6	Thermal/Air Lay	er [3]	InsulBase® Polyiso (		0' 2 77/128"			
7	Substrate [2]		VapAir Seal™ 725TR	Air/Vapor Barrier Temporary Roof	0' 0 5/128"			
8	Core Boundary		Layers Below Wrap		0. 0.			
9	Structure [1]		Concrete, Cast-in-Pl	ece gray	1' 0"			V
<	`						>	
b	nsert (	Delete Up	Down					
					0	Cancel	Help	

#### Fully Adhered RapidLock (RL™) System Example: Without Coverboard, With RL™ Polviso Insulation

1		Material				
	Function Core Boundary	Layers Above Wrap	Thickness 0° 0°	Wraps	Variable	
2	Finish 1 [4]	FleeceBACK® RL™ TPO (115 Mil-White)	0' 0 29/256"			_
3	Thermal/Air Layer [3]	SecurShield® RL™ Polyiso Insulation (CGF)	0" 2 77/128"			
4	Membrane Layer	Flexible FAST™ (Low-Rise Polyurethane) Adhesive	0. 0.			
5	Thermal/Air Layer [3]	SecurShield® Polyiso Insulation (CGF)	0" 2 77/128"			
6	Membrane Layer	Flexible FAST™ (Low-Rise Polyurethane) Adhesive	0. 0.			
7	Substrate [2]	VapAir Seal™ 725TR Air/Vapor Barrier Temporary Roof	0" 0 5/128"			
8	Core Boundary	Layers Below Wrap	0. 0.			
9	Structure [1]	Concrete, Cast-in-Place gray	1. 0.			
	Insert Delete U	Down		OK OK	Cancel	He

# Without Coverboard, With RL™ Polyiso Insulation

Mechanically Attached RapidLock (RL™) System Example:

	Function	Material	Thickness	Wraps	Variable ^
1	Core Boundary	Layers Above Wrap	0, 0,		
2	Finish 1 [4]	FleeceBACK® RL™ TPO (115 Mil-White)	0' 0 29/256*		]
3	Membrane Layer	Mechanical Fastener and Plate (Select Based on Project Design)	0, 0,		
4	Thermal/Air Layer [3]	InsulBase® RL™ Polyiso (GRF)	0' 2 77/128"		
5	Thermal/Air Layer [3]	InsulBase® Polyiso (GRF)	0' 2 77/128"		]
6	Substrate [2]	VapAir Seal™ 725TR Air/Vapor Barrier Temporary Roof	0' 0 5/128*		
7	Core Boundary	Layers Below Wrap	0' 0"		· ·

#### Fully Adhered RapidLock (RL™) System Example: With RL™ Coverboard and InsulFoam EPS Insulation

	Function	Material	Thickness	Wraps	Variable ^
	Core Boundary	Layers Above Wrap	0, 0.		
	Finish 1 [4]	FleeceBACK® RL™ TPO (115 Mil-White)	0' 0 29/256"		Q
	Substrate [2]	SecurShield® HD RL™ Coverboard (CGF)	0' 0 1/2"		<u></u>
	Membrane Layer Thermal/Air Layer [3]	Flexible FAST™ (Low-Rise Polyurethane) Adhesive InsulFoam EPS	0' 3 1/2"		H
	Membrane Layer	Flexible FAST <sup>W</sup> (Low-Rise Polyurethane) Adhesive	0' 0"		H
	Thermal/Air Layer [3]	InsulFoam EPS	0′ 3 1/2*		H
	Membrane Layer	Flexible FAST* (Low-Rise Polyurethane) Adhesive	0, 0,,		H
	Substrate [2]	VapAir Seal™ 725TR Air/Vapor Barrier Temporary Roof	0' 0 5/128"		H
0	Core Boundary	Layers Below Wrap	0, 0,		Ш
1	Structure [1]	Concrete, Cast-in-Place gray	1' 0"		
					>
	Insert Delete Up	Down			

Once growth media depth has been determined, delete extraneous growth media

Insert Dricce Up Down

