

EPDM Warranty Availability

Membrane Attachment Method	Membrane Type	Minimum Membrane Thickness	Maximum Warranty Duration	Maximum Warranty Wind Speed	Maximum Hail Diameter	Accidental Puncture
		45-mil	15 YR	90 mph	N/A	N/A
	Sure-Seal (Non-Reinforced)	60-mil	25 YR	120 mph	1 inch	N/A
	(Non Holmorood)	90-mil	30 YR	120 mph	2 inch	32 hrs
Adhered		45-mil	15 YR	90 mph	N/A	8 hrs
Aunereu	Sure-Tough (Reinforced)	60-mil	20 YR	120 mph	1 inch	16 hrs
	(nonnoroda)	75-mil	30 YR	120 mph	2 inch	32 hrs
	Sure-White	60-mil	25 YR	120 mph	1 inch	N/A
	Sule-wille	90-mil	30 YR	120 mph	2 inch	32 hrs
	Sure-Seal (Non-Reinforced) SAT	60-mil	20 YR	100 mph	1 inch	N/A
Self Adhered Sheet	Sure-White SAT	60-mil	20 YR	100 mph	1 inch	N/A
	Sure-Tough (Reinforced) SAT	60-mil	20 YR	100 mph	1 inch	16 hrs
	FleeceBACK EPDM (Sure-Seal)	100-mil	15 YR	120 mph	1 inch	8 hrs
		115-mil	25 YR	120 mph	2 inch	16 hrs
Adhered with Texible FAST		145-mil	30 YR	120 mph	3 inch	32 hrs
	FleeceBACK EPDM	115-mil	25 YR	120 mph	2 inch	16 hrs
	(Sure-White)	145-mil	30 YR	120 mph	3 inch	32 hrs
	FleeceBACK AFX EPDM (Sure-Seal)	90-mil	20 YR	90 mph	1 inch	8 hrs
Adhered with Asphalt		105-mil	25 YR	90 mph	2 inch	16 hrs
	FleeceBACK AFX EPDM (Sure-White)	105-mil	25 YR	90 mph	2 inch	16 hrs
Adhered with RapidLock	FleeceBACK RL EPDM	115-mil	20 YR	90 mph	2 inch	16 hrs
		45-mil	20 YR	80 mph	1 inch	N/A
Ballasted	Sure-Seal (Non-Reinforced)	60-mil	25 YR	80 mph	2 inch	N/A
	()	90-mil	30 YR	80 mph	3 inch	N/A
		45-mil	15 YR	90 mph	N/A	8 hrs
	Sure-Tough (Reinforced)	60-mil	20 YR	90 mph	N/A	16 hrs
		75-mil	30 YR	90 mph	N/A	32 hrs
lechanically		100-mil	15 YR	72 mph	N/A	8 hrs
astened	FleeceBACK EPDM (Sure-Seal)	115-mil	15 YR	72 mph	N/A	16 hrs
	()	145-mil	15 YR	72 mph	N/A	32 hrs
	FleeceBACK EPDM	115-mil	15 YR	72 mph	N/A	16 hrs
	(Sure-White)	145-mil	15 YR	72 mph	N/A	32 hrs

Refer to Carlisle's EPDM or FleeceBACK Specification and Details for required design information for various warranty durations.

Hail coverage requires the use of an approved, adhered cover board: SecurShield HD or HD Plus, SecurShield HD Composite, StormBase Composite, EcoStorm VSH, min. ½" thick DensDeck Prime or DensDeck StormX or min. ½" thick Securock.

When adhering FleeceBACK EPDM using Flexible FAST in full coverage (or beads at 4" o.c.) an extra 4 man hours of Accidental Puncture and an extra 1" of Hail coverage may be available (to a max. of 4").



TPO Warranty Availability

Membrane Attachment Method	Membrane Type	Minimum Membrane Thickness	Maximum Warranty Duration	Maximum Warranty Wind Speed	Maximum Hail Diameter	Accidental Puncture
	Sure-Weld or	45-mil	15 YR	90 mph	N/A	N/A
	Sure-Weld HS	60-mil	20 YR	120 mph	1 inch	N/A
Adhered	(High Slope)	80-mil	30 YR	120 mph	2 inch	16 hrs
	Sure-Weld HS	60-mil	20 YR	120 mph	1 inch	N/A
	(Special Color TPO)	80-mil	20 YR	120 mph	2 inch	16 hrs
Calf Adharad Chaot	Cure Wold CAT TDO	60-mil	20 YR	100 mph	1 inch	N/A
Self Adhered Sheet	Sure-Weld SAT TPO	80-mil	30 YR	100 mph	2 inch	16 hrs
		100-mil	15 YR	120 mph	1 inch	8 hrs
	FleeceBACK TPO (Sure-Weld)	115-mil	25 YR	120 mph	2 inch	16 hrs
Adhered with		135-mil	30 YR	120 mph	3 inch	32 hrs
Flexible FAST	FleeceBACK TPO (Sure-Weld Special Color)	115-mil	20 YR	120 mph	2 inch	16 hrs
		120-mil	15 YR	90 mph	1 inch	N/A
Adhered with Asphalt	FleeceBACK AFX (Sure-Weld)	135-mil	20 YR	90 mph	2 inch	16 hrs
	(oure weid)	155-mil	25 YR	90 mph	2 inch	32 hrs
Adhered with RapidLock	FleeceBACK RL TPO (Sure-Weld)	115-mil	20 YR	90 mph	2 inch	16 hrs
		45-mil	15 YR	90 mph	N/A	N/A
	Sure-Weld	60-mil	20 YR	90 mph	N/A	N/A
Vechanically		80-mil	30 YR	90 mph	N/A	16 hrs
Fastened	FleeceBACK FR TPO (Sure-Weld Fire Rated)	115-mil	15 YR	72 mph	N/A	16 hrs
		45-mil	15 YR	90 mph	N/A	N/A
nduction Welded	Sure-Weld	60-mil	20 YR	90 mph	N/A	N/A
		80-mil	20 YR	90 mph	N/A	16 hrs

Refer to Carlisle's Thermoplastic (TPO/PVC/KEE HP) or FleeceBACK Specification and Details for required design information for various warranty durations.

Hail coverage requires the use of an approved, adhered cover board: SecurShield HD or HD Plus, SecurShield HD Composite, StormBase Composite, EcoStorm VSH, min. ½" thick DensDeck Prime or DensDeck StormX or min. ½" thick Securock.

When adhering FleeceBACK TPO using Flexible FAST in full coverage (or beads at 4" o.c.) an extra 4 man hours of Accidental Puncture and an extra 1" of Hail coverage may be available (to a max. of 3").



PVC Warranty Availability

Membrane Attachment Method	Membrane Type	Minimum Membrane Thickness	Maximum Warranty Duration	Maximum Warranty Wind Speed	Maximum Hail Diameter	Accidental Puncture
		50-mil	15 YR	90 mph	N/A	N/A
	Sure-Flex PVC	60-mil	20 YR	120 mph	1 inch	N/A
A alla a una al		80-mil	25 YR	120 mph	2 inch	16 hrs
Adhered		50-mil	20 YR	90 mph	N/A	N/A
	Sure-Flex KEE HP	60-mil	25 YR	120 mph	1 inch	N/A
		80-mil	30 YR	120 mph	2 inch	16 hrs
		105-mil	15 YR	120 mph	1 inch	N/A
	FleeceBACK PVC (Sure-Flex)	115-mil	20 YR	120 mph	2 inch	16 hrs
Adhered with	(ouro riox)	135-mil	25 YR	120 mph	3 inch	32 hrs
Flexible FAST		105-mil	20 YR	120 mph	1 inch	N/A
	FleeceBACK KEE HP (Sure-Flex)	115-mil	25 YR	120 mph	2 inch	16 hrs
	(oure rick)	135-mil	30 YR	120 mph	3 inch	32 hrs
Adhered with RapidLock	FleeceBACK RL PVC (Sure-Flex)	115-mil	20 YR	90 mph	2 inch	16 hrs
	Sure-Flex PVC	50-mil	15 YR	90 mph	N/A	N/A
		60-mil	20 YR	90 mph	N/A	N/A
		80-mil	25 YR	90 mph	N/A	16 hrs
		105-mil	15 YR	72 mph	N/A	N/A
	FleeceBACK PVC (Sure-Flex)	115-mil	15 YR	72 mph	N/A	16 hrs
Vechanically	(ouro riok)	135-mil	15 YR	72 mph	N/A	32 hrs
Fastened		50-mil	20 YR	90 mph	N/A	N/A
	Sure-Flex KEE HP	60-mil	25 YR	90 mph	N/A	N/A
		80-mil	30 YR	90 mph	N/A	16 hrs
		105-mil	15 YR	72 mph	N/A	N/A
	FleeceBACK KEE HP	115-mil	15 YR	72 mph	N/A	16 hrs
	(Sure-Flex)	135-mil	15 YR	72 mph	N/A	32 hrs
		50-mil	15 YR	90 mph	N/A	N/A
	Sure-Flex PVC	60-mil	20 YR	90 mph	N/A	N/A
		80-mil	20 YR	90 mph	N/A	16 hrs
nduction Welded		50-mil	15 YR	90 mph	N/A	N/A
	Sure-Flex KEE HP	60-mil	20 YR	90 mph	N/A	N/A
		80-mil	20 YR	90 mph	N/A	16 hrs

Refer to Carlisle's Thermoplastic (TPO/PVC/KEE HP) or FleeceBACK Specification and Details for required design information for various warranty durations.

Hail coverage requires the use of an approved, adhered cover board: SecurShield HD or HD Plus, SecurShield HD Composite, StormBase Composite, EcoStorm VSH, min. ½" thick DensDeck Prime or DensDeck StormX or min. ½" thick Securock.

When adhering FleeceBACK PVC or KEE HP using Flexible FAST in full coverage (or beads at 4" o.c.) an extra 4 man hours of Accidental Puncture and an extra 1" of Hail coverage may be available (to a max. of 3").



Traditional Roof Garden Systems Extensive / Shallow Systems Warranty Availability

Membrane Attachment Method	Membrane Type		Minimum Membrane Thickness	Maximum Warranty Duration	Maximum Warranty Wind Speed
		Cure Cool (Non Deinforged)	60-mil	15 YR	55 mph
		Sure-Seal (Non-Reinforced)	90-mil	20 YR	55 mph
	EPDM		60-mil	15 YR	55 mph
	EFDIVI	Sure-Tough (Reinforced)	75-mil	20 YR	55 mph
		Sure-White	60-mil	15 YR	55 mph
Adhered		Sule-wille	90-mil	20 YR	55 mph
Aunereu	TPO	Sure-Weld	60-mil	15 YR	55 mph
	IFU	Sule-weiu	80-mil	20 YR	55 mph
	PVC	Sure-Flex PVC	60-mil	15 YR	55 mph
	FVG	Sule-Flex FVG	80-mil	20 YR	55 mph
	KEE HP	Sure-Flex KEE HP	60-mil	15 YR	55 mph
	NEE NF		80-mil	20 YR	55 mph
	EPDM	Sure-Tough (Reinforced) SAT	60-mil	15 YR	55 mph
Self Adhered Sheet	750	Sure-Weld SAT TPO	60-mil	15 YR	55 mph
	TPO		80-mil	20 YR	55 mph
			115-mil	15 YR	55 mph
	50014	Sure-Seal FleeceBACK	145-mil	20 YR	55 mph
	EPDM	Sure-White FleeceBACK	115-mil	15 YR	55 mph
			145-mil	20 YR	55 mph
Adhered with	TDO		115-mil	15 YR	55 mph
Flexible FAST	TPO	Sure-Weld FleeceBACK	145-mil	20 YR	55 mph
	DVC		115-mil	15 YR	55 mph
	PVC	Sure-Flex PVC FleeceBACK	135-mil	20 YR	55 mph
	KEE HP		115-mil	15 YR	55 mph
	KEE HP	Sure-Flex KEE HP FleeceBACK	135-mil	20 YR	55 mph
	EPDM	Sure-Seal FleeceBACK AFX	105-mil	20 YR	55 mph
Adhered with Asphalt	TDO	Sura Wold ElegenDACK AFY	135-mil	15 YR	55 mph
	TPO	Sure-Weld FleeceBACK AFX	155-mil	20 YR	55 mph
Adhorod with Denidl cold	EPDM	FleeceBACK RL EPDM	115-mil	15 YR	55 mph
Adhered with RapidLock	TPO	FleeceBACK RL TPO	115-mil	15 YR	55 mph

Note: Refer to Carlisle's Traditional Roof Garden Specification and Details for required design information for various warranty durations.



Traditional Roof Garden Systems Semi-Intensive / Medium Systems Warranty Availability

Membrane Attachment Method	Membrane Type		Minimum Membrane Thickness	Maximum Warranty Duration	Maximum Warranty Wind Speed
		Sure-Seal (Non-Reinforced)	90-mil	20 YR	55 mph
	EPDM	Sure-Tough (Reinforced)	75-mil	15 YR	55 mph
Adhavad		Sure-White	90-mil	20 YR	55 mph
Adhered	TPO	Sure-Weld TPO	80-mil	20 YR	55 mph
	PVC	Sure-Flex PVC	80-mil	20 YR	55 mph
	KEE HP	Sure-Flex KEE HP	80-mil	20 YR	55 mph
		Sure-Seal FleeceBACK	115-mil	15 YR	55 mph
	EPDM		145-mil	20 YR	55 mph
		Sure-White FleeceBACK	115-mil	15 YR	55 mph
			145-mil	20 YR	55 mph
Adhered with	TDO	Sure-Weld FleeceBACK	115-mil	15 YR	55 mph
Flexible FAST	TPO		135-mil	20 YR	55 mph
	PVC	Sure-Flex PVC FleeceBACK	115-mil	15 YR	55 mph
	PVG	SUIE-FIEX PVC FIEECEDACK	135-mil	20 YR	55 mph
			115-mil	15 YR	55 mph
	KEE HP	Sure-Flex KEE HP FleeceBACK	135-mil	20 YR	55 mph
	EPDM	Sure-Seal FleeceBACK AFX	105-mil	20 YR	55 mph
Adhered with Asphalt	TPO		135-mil	15 YR	55 mph
	IPU	Sure-Weld FleeceBACK AFX	155-mil	20 YR	55 mph
Adhorod with DopidLook	EPDM	FleeceBACK RL EPDM	115-mil	15 YR	55 mph
Adhered with RapidLock	TPO	FleeceBACK RL TPO	115-mil	15 YR	55 mph

Note: Refer to Carlisle's Traditional Roof Garden Specification and Details for required design information for various warranty durations.



Traditional Roof Garden Systems Intensive / Deep Systems Warranty Availability

Membrane Attachment Method	Membrane Type		Minimum Membrane Thickness	Maximum Warranty Duration	Maximum Warranty Wind Speed
	EPDM	Sure-Seal (Non-Reinforced)	90-mil	20 YR	55 mph
	EPDINI	Sure-White	90-mil	20 YR	55 mph
Adhered	TP0	Sure-Weld TPO	80-mil	15 YR	55 mph
	PVC	Sure-Flex PVC	80-mil	15 YR	55 mph
	KEE HP	Sure-Flex KEE HP	80-mil	15 YR	55 mph
		Sure-Seal FleeceBACK	115-mil	15 YR	55 mph
	EPDM		145-mil	20 YR	55 mph
		Sure-White FleeceBACK	115-mil	15 YR	55 mph
			145-mil	20 YR	55 mph
Adhered with	TPO	Sure-Weld FleeceBACK	115-mil	15 YR	55 mph
Flexible FAST			135-mil	20 YR	55 mph
	DIVO		115-mil	15 YR	55 mph
	PVC	Sure-Flex PVC FleeceBACK	135-mil	20 YR	55 mph
			115-mil	15 YR	55 mph
	KEE HP	Sure-Flex KEE HP FleeceBACK	135-mil	20 YR	55 mph
	EPDM	Sure-Seal FleeceBACK AFX	105-mil	15 YR	55 mph
Adhered with Asphalt	TPO	Sure-Weld FleeceBACK TPO	135-mil	15 YR	55 mph
	EPDM	FleeceBACK RL EPDM	115-mil	15 YR	55 mph
Adhered with RapidLock	TPO	FleeceBACK RL TPO	115-mil	15 YR	55 mph

Note: Refer to Carlisle's Traditional Roof Garden Specification and Details for required design information for various warranty durations.



Modular Roof Garden Systems Warranty Availability

Membrane Attachment Method	Membrane Type		Minimum Membrane Thickness	Maximum Warranty Duration	Maximum Warranty Wind Speed
		Quer Ocal (New Deinferred)	60-mil	20 YR	55 mph
		Sure-Seal (Non-Reinforced)	90-mil	20 YR	55 mph
	EPDM	Sure-Tough (Reinforced)	60-mil	20 YR	55 mph
	EPDIVI	Sure-Tough (Reinforcea)	75-mil	20 YR	55 mph
		Sure-White	60-mil	20 YR	55 mph
Adhered		Sure-writte	90-mil	20 YR	55 mph
Aunereu	TPO	Sure-Weld	60-mil	20 YR	55 mph
	IPU	Sure-weid	80-mil	20 YR	55 mph
	DVO		60-mil	20 YR	55 mph
	PVC	Sure-Flex PVC	80-mil	20 YR	55 mph
		Sure-Flex KEE HP	60-mil	20 YR	55 mph
	KEE HP		80-mil	20 YR	55 mph
	EPDM	Sure-Tough (Reinforced) SAT	60-mil	20 YR	55 mph
Self Adhered Sheet	TDO	Sure-Weld SAT TPO	60-mil	20 YR	55 mph
	TPO		80-mil	20 YR	55 mph
		Sure-Seal FleeceBACK EPDM Sure-White FleeceBACK	115-mil	20 YR	55 mph
	FDDM		145-mil	20 YR	55 mph
	EPDIVI		115-mil	20 YR	55 mph
			145-mil	20 YR	55 mph
Adhered with	TDO		115-mil	20 YR	55 mph
Flexible FAST	TPO	Sure-Weld FleeceBACK	145-mil	20 YR	55 mph
	PVC		115-mil	20 YR	55 mph
	PVG	Sure-Flex PVC FleeceBACK	135-mil	20 YR	55 mph
	KEE HP		115-mil	20 YR	55 mph
	NEE HP	Sure-Flex KEE HP FleeceBACK	135-mil	20 YR	55 mph
	EPDM	Sure-Seal FleeceBACK AFX	105-mil	20 YR	55 mph
Adhered with Asphalt	TDO	Cure Wold Flaces DAOK AFY	135-mil	20 YR	55 mph
	TPO	Sure-Weld FleeceBACK AFX	155-mil	20 YR	55 mph
Adhorod with Donidl cold	EPDM	FleeceBACK RL EPDM	115-mil	20 YR	55 mph
Adhered with RapidLock	TP0	FleeceBACK RL TPO	115-mil	20 YR	55 mph

Note: Refer to Carlisle's Modular Roof Garden Specification and Details for required design information for various warranty durations.



Paver Systems Warranty Availability

Membrane Attachment Method	Membrane Type		Minimum Membrane Thickness	Maximum Warranty Duration	Maximum Warranty Wind Speed
		Sure-Seal	60-mil	20 YR	55 mph
		(Non-Reinforced)	90-mil	20 YR	55 mph
	EPDM	Sure-Tough (Reinforced)	60-mil	20 YR	55 mph
	EPDIM		75-mil	20 YR	55 mph
		Sure-White	60-mil	20 YR	55 mph
Adhered		Sule-Wille	90-mil	20 YR	55 mph
Aunereu	TPO	Sure-Weld	60-mil	20 YR	55 mph
	IFU	Sule-Welu	80-mil	20 YR	55 mph
	PVC	Sure-Flex PVC	60-mil	20 YR	55 mph
	PVG	Sure-Flex PVC	80-mil	20 YR	55 mph
	KEE HP	Sure-Flex KEE HP	60-mil	20 YR	55 mph
	NEE NF		80-mil	20 YR	55 mph
	EPDM	Sure-Tough (Reinforced) SAT	60-mil	20 YR	55 mph
Self Adhered Sheet	75.0	Sure-Weld SAT TPO	60-mil	20 YR	55 mph
	TPO		80-mil	20 YR	55 mph
			115-mil	20 YR	55 mph
	FDDM	Sure-Seal FleeceBACK	145-mil	20 YR	55 mph
	EPDM	Sure-White FleeceBACK	115-mil	20 YR	55 mph
			145-mil	20 YR	55 mph
Adhered with	TDO	PO Sure-Weld FleeceBACK	115-mil	20 YR	55 mph
Flexible FAST	IPU		145-mil	20 YR	55 mph
	DVC	PVC Sure-Flex PVC FleeceBACK	115-mil	20 YR	55 mph
	PVG		135-mil	20 YR	55 mph
	KEE HP	Sure-Flex KEE HP FleeceBACK	115-mil	20 YR	55 mph
			135-mil	20 YR	55 mph
	EPDM	Sure-Seal FleeceBACK AFX	105-mil	20 YR	55 mph
Adhered with Asphalt	TPO	Sure-Weld FleeceBACK AFX	135-mil	20 YR	55 mph
	IFU		155-mil	20 YR	55 mph
Adhered with RapidLock	EPDM	FleeceBACK RL EPDM	115-mil	20 YR	55 mph
AUTOLOU WILL NAPIULUUK	TPO	FleeceBACK RL TPO	115-mil	20 YR	55 mph

Note: Refer to Carlisle's Modular Roof Garden Specification and Details for required design information for various warranty durations.