



MECHANICALLY ATTACHED TPO SYSTEM OVER STEEL DECK

FM CODE APPROVALS

Deck Type	Deck Grade (ksi)	Assembly #	Thermal Barrier	Vapor Barrier	Insulation	Cover Board	Row Spacing	Membrane Plate	Membrane Fastener	Membrane Securement Rate (Fastener #/OC)	Membrane	Slope (X':1 ft)	Wind Uplift	External Fire	Hail
Steel	33	437800-0-0	-	-	E3	PR HD, PR HD FR	90"	HL	HL	12"	TPO	0.75	60	A	SH
Steel	33*	437850-0-0	-	-	E3	PR HD, PR HD FR	114"	HL	HL	12"	TPO	0.75	60	A	SH
Steel	33*	437891-0-0	-	-	E3	PR HD, PR HD FR	114"	HL	HL	6"	TPO	0.75	60	A	SH
Steel	33*	437894-0-0	-	-	E3	PR HD, PR HD FR	114"	HL	HL	6"	TPO	0.75	60	A	SH
Steel	33*	437896-0-0	-	-	E3	PR HD, PR HD FR	114"	XHLP	XHL	12"	TPO	0.75	60	A	SH
Steel	33	437900-0-0	-	-	E3	PR HD, PR HD FR	66"	HL	HL	18"	TPO	0.75	60	A	SH
Steel	33*	437922-0-0	(PE), VB SA/SR GF, VB SA/DX FG, VB SA/DX C, DG/SR GF, DG/DX FG, DBH/DX FG, -	-	E3	PR HD, PR HD FR	138"	HL	HL	6"	TPO	0.75	60	A	SH
Steel	80	437391-0-0	-	-	E3	-	138"	HL	HL	12"	TPO	0.75	60	A	SH
Steel	80	437517-0-0	-	-	IF, I FR	-	138"	HL	HL	12"	TPO	1.50	60	A	SH
Steel	80	437518-0-0	-	-	E3	IF, I FR	138"	HL	HL	12"	TPO	1.00	60	A	SH
Steel	80	437519-0-0	-	-	E3	RP	138"	HL	HL	12"	TPO	1.50	60	A	SH
Steel	80	222822-0-0	-	-	E3	-	114"	HL	HL	12"	TPO	0.75	75	A	SH
Steel	80	222823-0-0	-	-	E3	I FR, RP	114"	HL	HL	12"	TPO	1.50	75	A	SH
Steel	80	222824-0-0	-	-	E3	DD, DX C, DX FG, DX GM, SR GM	114"	HL	HL	12"	TPO	2.00	75	A	SH
Steel	80	223036-0-0	-	-	E3	OSB, RP, DX C, DX FG, DX GM	114"	HL	HL	12"	TPO	0.75	75	A	SH
Steel	80	341121-0-0	-	-	E3	I, I FR, DX C, DX FG, DX GM	114"	HL	HL	12"	TPO	1.00	75	A	SH
Steel	33*	437923-0-0	(PE), VB SA/SR GF, VB SA/DX FG, VB SA/DX C, DG/SR GF, DG/DX FG, DBH/DX FG, -	-	E3	PR HD, PR HD FR	138"	HL	HL	6"	TPO	0.75	75	A	SH
Steel	33	437895-0-0	-	-	E3	PR HD, PR HD FR	90"	XHLP	XHL	12"	TPO	0.75	75	A	SH
Steel	33	437890-0-0	-	-	E3	PR HD, PR HD FR	90"	HL	HL	6"	TPO	0.75	75	A	SH
Steel	33*	437808-0-0	-	-	E3	PR HD, PR HD FR	114"	XHLP	XHL	12"	TPO	0.75	75	A	SH
Steel	80*	437526-0-0	-	-	E3	-	138"	HL	HL	6"	TPO	0.75	75	A	SH
Steel	80	391875-0-0	-	-	E3	-	90"	90 SP	HL	12"	TPO	0.75	90	A	SH
Steel	80	391879-0-0	-	-	E3	-	90"	90 SP	HL	12"	TPO	0.75	90	A	SH
Steel	33*	391880-0-0	-	-	E3	I FR, RP	90"	90 SP	HL	12"	TPO	1.50	90	A	SH



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Steel	33*	391881-0-0	-	-	E3	DD, DX C, DX FG, DX GM, SR GM, SR GF	90"	90 SP	HL	12"	TPO	2.00	90	A	SH
Steel	33*	391890-0-0	-	-	E3	OSB, RP, DX C, DX FG, DX GM	90"	90 SP	HL	12"	TPO	0.75	90	A	SH
Steel	33*	437801-0-0	-	-	E3	PR HD, PR HD FR	90"	XHLP	XHL	12"	TPO	0.75	90	A	SH
Steel	33*	437807-0-0	-	-	E3	PR HD, PR HD FR	114"	HL	HL	6"	TPO	0.75	90	A	SH
Steel	33*	437924-0-0	(PE), VB SA/SR GF, VB SA/DX FG, VB SA/DX C, DG/SR GF, DG/DX FG, DBH/DX FG, -	-	E3	PR HD, PR HD FR	138"	HL	HL	6"	TPO	0.75	90	A	SH
Steel	33	437901-0-0	-	-	E3	PR HD, PR HD FR	66"	HL	HL	12"	TPO	0.75	90	A	SH
Steel	80**	437527-0-0	-	-	E3	-	138"	HL	HL	6"	TPO	0.75	90	A	SH
Steel	80	223037-0-0	-	-	E3	OSB, RP, DX C, DX FG, DX GM	114"	XHLP	XHL	6"	TPO	0.75	105	A	SH
Steel	80	222825-0-0	-	-	E3	-	114"	XHLP	XHL	6"	TPO	0.75	105	A	SH
Steel	80	222826-0-0	-	-	E3	I FR, RP	114"	XHLP	XHL	6"	TPO	1.50	105	A	SH
Steel	80	222827-0-0	-	-	E3	DD, DX C, DX FG, DX GM, SR GM, SR GF	114"	XHLP	XHL	6"	TPO	2.00	105	A	SH
Steel	80	341122-0-0	-	-	E3	I, I FR, DX C, DX FG, DX GM	114"	XHLP	XHL	6"	TPO	1.00	105	A	SH
Steel	33	437902-0-0	-	-	E3	PR HD, PR HD FR	66"	HL	HL	6"	TPO	0.75	105	A	SH
Steel	33*	437925-0-0	(PE), VB SA/SR GF, VB SA/DX FG, VB SA/DX C, DG/SR GF, DG/DX FG, DBH/DX FG, -	-	E3	PR HD, PR HD FR	138"	HL	HL	6"	TPO	0.75	105	A	SH
Steel	33*	437878-0-0	-	-	E3	PR HD, PR HD FR	114"	HL	HL	6"	TPO	0.75	105	A	SH
Steel	33*	222813-0-0	-	(PE)	E3	-	54"	HL	HL	6"	TPO	0.75	120	A	SH
Steel	33*	222813-0-0	-	(PE)	E3	-	90"	HL	HL	6"	TPO	0.75	120	A	SH
Steel	33*	222815-0-0	-	-	E3	DD, DX C, DX FG, DX GM	90"	HL	HL	6"	TPO	2.00	120	A	SH
Steel	33*	223031-0-0	-	-	E3	OSB, RP, DX C, DX FG, DX GM	90"	HL	HL	6"	TPO	0.75	120	A	SH
Steel	33	334503-0-0	-	-	E3	-	54"	HL	HL	6"	TPO	0.75	120	A	SH
Steel	33	334505-0-0	-	-	E3	DD, RP, DX C, DX FG, DX GM, SR GM, SR GF	54"	HL	HL	6	TPO	2.00	120	A	SH



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Steel	33*	341118-0-0	-	-	E3	I, I FR, DX C, DX FG, DX GM	90"	HL	HL	6"	TPO	1.00	120	A	SH
Steel	33	341208-0-0	-	-	E3	I, I FR, DX C, DX FG, DX GM	54"	HL	HL	6"	TPO	1.00	120	A	SH
Steel	33*	378726-0-0	-	-	E3	DD, RP	90"	HL	HL	6"	TPO	1.50	120	A	SH
Steel	33	380588-0-0	-	-	E3	DD, RP, SR GM, SR GF	54"	HL	HL	6"	TPO	1.50	120	A	SH
Steel	33*	437802-0-0	-	-	E3	PR HD, PR HD FR	90"	HL	HL	6"	TPO	0.75	120	A	SH
Steel	33	437892-0-0	-	-	E3	PR HD, PR HD FR	54"	HL	HL	6"	TPO	0.75	120	A	SH
Steel	33*	437903-0-0	-	-	E3	PR HD, PR HD FR	66"	HL	HL	6"	TPO	0.75	120	A	SH
Steel	33*	437904-0-0	-	-	E3	PR HD, PR HD FR	66"	HL	HL	6"	TPO	0.75	135	A	SH
Steel	33*	437905-0-0	-	-	E3	PR HD, PR HD FR	66"	HL	HL	6"	TPO	0.75	150	A	SH
Steel	33*	222951-0-0	(DD, DDP, DX FG, DX GM, SR GF)	-	E3	-	54"	HL	HL	6"	TPO	0.75	165	A	SH
Steel	33*	222952-0-0	(DD, DDP, DX FG, DX GM, SR GF)	-	E3	I FR, RP	54"	HL	HL	6"	TPO	1.50	165	A	SH
Steel	33*	222954-0-0	(DD, DDP, DX C, DX FG, DX GM, SR GF)	-	E3	DD, DX C, DX FG, DX GM, SR GM, SR GF	54"	HL	HL	6"	TPO	2.00	165	A	SH
Steel	33*	223067-0-0	-	-	E3	OSB, RP, DX C, DX FG, DX GM	54"	HL	HL	6"	TPO	0.75	165	A	SH
Steel	33*	341138-0-0	-	-	E3	I, I FR, DX C, DX FG, DX GM	54"	HL	HL	6"	TPO	1.00	165	A	SH
Steel	33*	362312-0-0	-	-	E3	-	54"	HL	HL	6"	TPO	0.75	165	A	SH
Steel	33*	378749-0-0	-	-	E3	DD, RP, SR GM, SR GF	54"	HL	HL	6"	TPO	1.50	165	A	SH
Steel	33*	437906-0-0	-	-	E3	PR HD, PR HD FR	66"	HL	HL	6"	TPO	0.75	165	A	SH
Steel	33*	437822-0-0	-	-	E3	PR HD, PR HD FR	54"	HL	HL	6"	TPO	0.75	165	A	SH
Steel	33*	437907-0-0	-	-	E3	PR HD, PR HD FR	66"	HL	HL	6"	TPO	0.75	180	A	SH



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FM CODE APPROVALS

Application Type

N New Roof
 RC Re-Cover
 RR Re-Roof

Membrane

TPO JM TPO

Deck Grade

33 33 (22ga 33ksi 72" Joist)
 33* 33* (20-16ga 33ksi 72" Joist)
 (22ga 33ksi 48" Joist)
 (22ga 33ksi 60" Joist)
 (22ga 80ksi 72" Joist)
 80 80 (22ga 80ksi, 72" joist)

Thermal Barrier / Insulation / Cover Board

E3 ENRGY 3®
 I Invinsa Roof Board
 I FR Invinsa® FR Roof Board
 IP Invinsa® Plus
 RP RetroPlus™
 SR C SECUROCK® Cement Roof Board
 SR GM SECUROCK® Glass-Mat Roof Board
 SR GF SECUROCK® Gypsum-Fiber Roof Board
 DD DensDeck
 DDP DensDeck Prime
 DX C DEXcell Cement Roof Board
 DX FG DEXcell FA Glass Mat Roof Board
 DX GM DEXcell Glass Mat Roof Board
 PR HD ProtectoR HD Board
 PR HD FR ProtectoR HD FR

Fastener and Plate

HL High Load
 HLP High Load Plus
 XHL Extra High Load
 XHLP Extra High Load Plate
 IW Induction Weld Plate
 UF UltraFast®
 XHD OMG Super XHD screw
 90 SP JM 90 Seam Plate

Securement

FA Fully Adhered
 RA Ribbon Applied

Adhesive

LVOC Low VOC
 SB Solvent Based
 WB Water Based
 2PUIA Two-Part Urethane Insulation Adhesive
 HA Hot Asphalt
 MBR BA MBR Bonding Adhesive
 RSUA JM Roofing System Urethane Adhesive
 1S JM One-Step Foamable Adhesive

Vapor Barrier

AB APP Base
 ABP APP Base Plus
 DG DynaGrip Base SD/SA
 GP GlasPly IV
 GPP GlasPly Premier
 VB SA JM Vapor Barrier SA
 DB DynaBase
 DBH DynaBase HW
 DWB DynaWeld Base
 PE Polyethylene (4 or 6 mil)