

Introduction

AccuCrete® Brand Underlayments are manufactured by Arcosa Specialty Materials. We have been mining materials for our construction products for over 40 years. AccuCrete® applicators are in most major markets throughout North America and Canada.

	NexGen®	Prime®	Prepour®	AccuRadiant®	G40®	G50®	H40®
ASTM C472	•	•	•	•	•	•	
ASTM C109							•
PSI Range	2000-3500	2500-4000	up to 2600	3000-4000	3500-5000	4500-6000	up to 7000
Thickness- Minimum to Maximum in a Single Pour	3/8" to 3"	3/8" to 3"	Min 3/4" 3/8" to 2"	Min 3/4" 3/8" to 3"	Featheredge Typical thickness: 3/8" to 1-1/2"	Featheredge Typical thickness: 1/8" to 1"	3/8" to 1-1/2"
ASTM E84 Smoke Developed Fuel Contribution Smoke Density	0	0	0	0	0	0	0
ASTM E119	Meets	Meets	Meets	Meets	Meets	Meets	Meets
Greenguard Gold Certified	•	•	•	•	•	•	•

AccuCrete® and AccuLevel® underlayments are manufactured to rigorous ASTM standards, and have been tested to meet UL 1 and 2 hour fire rated designs. All AccuCrete® and AccuLevel® UL designs incorporate ultra low compressive AccuQuiet Sound Mats.

Section 1207.1 of the 2018 I. B. C. scope applies to common interior walls, partitions and floor/ceiling assemblies between adjacent dwelling units or between dwelling units and public areas.

Section 1201.2 of the 2018 I. B. C. scope applies to airborne sound for walls, partitions and floor/ceiling assemblies must have a sound transmission class (STC) of minimum 50 when tested in accordance with ASTM E90, laboratory test. Minimum 45 if field tested.

Section 1207.3 of the 2018 I. B. C. scope applies to structure borne sound refers to floor/ceiling assembles between dwelling units or dwelling units and a public area must have an impact insulation class (IIC) of minimum 50 when tested in accordance with ASTM E492, laboratory test. Minimum 45 if field tested.

AccuQuiet® D18, AccuQuiet® D25, and AccuQuiet® DX38 are Ultra Low Compression Mats with rigid vibration technology that provide outstanding sound control attenuation and durability . for use in conjunction with AccuCrete® Pourable Gypsum Underlayments.

AccuQuiet® Sound Control Systems are lab tested to meet and exceed I.B.C. standards. We employ lab testing to ensure results can be transferred from job to job. Field testing is used to verify construction, and results are not transferable from job to job.

AccuQuiet® Sound Control Systems offer a cost-effective noise reduction solution for new or renovation construction.

The lab sound tests incorporate 3/4" of AccuCrete Underlayment minimum over AccuQuiet® Sound Mats as thin as 1/4". Most entangled mesh sound mats require a minimum 1". AccuQuiet® Ultra Low Compression provides durability, as thin as 3/4" pour. UL Designs may be proprietary to truss, joist, ceiling dampers, RC-1 or drywall manufacturers. If a single manufacturer is listed in the design, only their products, and those tested in the UL design are permitted. Value engineering is accomplished by changing UL designs which allow for multiple manufacturers. AccuQuiet® and AccuCrete® have proprietary testing with non RC-1 Deluxe manufacturers. Additional tests are available specifically for RC Philips designs. Please contact your local AccuCrete® applicator for details.

Acoustical Mat Comparison

The most commonly used acoustical mat is an entangled mesh design. Made of nylon or polypropylene, the curly mesh strands have a significant open space between the strands. The curliness acts as a spring when an impact hits the floor, compressing the mat. Compression is an function of the entangled mesh design, but it creates a problem for the underlayment and so threatens the integrity of the floor.

Under normal loading - live load such as a person walking or dead load such as furniture, the compression means the slab is not fully supported. Less resistance to prevent the underlayment from bending is especially prevalent under highly flexible floor coverings like carpet and vinyl. A crack creates a weak spot, and over time with subsequent loading cracks widen and propagate. This wears out the underlayment, entangled mesh and shortens the life of the floor covering. In short, the entangled mesh system is replaced much earlier than expected.

Acoustical Mat	Gypsum	IIC: Vinyl	IIC: Tile	IIC: Wood Lam.	IIC: Vinyl Plank
1/8" Entangled Mesh	3/4"	50	53	50	51
AccuQuiet D18	3/4"	51	53	55	51
AccuQuiet D18	1"	53	54	59	58
1/4" Entangled Mesh	1"	N/A	54	53	
AccuQuiet D25	3/4"	50	54	57	56
AccuQuiet D25	1"	53	55	59	58
3/8" Entangled Mesh	1"	55	56	55	
AccuQuiet DX38	1"	55	58	59	60

The AccuQuiet® system with an ultra low deflection sound mat with AccuCrete® underlayment are engineered to work together to give the right balance between acoustic performance and durability. The top surface of the AccuQuiet® mat features a semi rigid structural grid supported by discreet contact pillars, approximately 1/4" in diameter. All load transfer goes through these pillars, and the mat has contact with only 5% of the surface area for ultra low contact. The compression occurs in the pillars, which makes the AccuQuiet® mat a stronger spring than entangled mesh- and increases the floor systems durability.

	S		OPEN WEB/	PARALL	EL CHORD TRU	JSS 1	HOUR	UL DESIG	GN			und ting	Lab Tes	t Num
ccuCrete UL Design	Other UL	AccuQuiet Sound Mat	AccuCrete Minimum Thickness	Insulation	Framing Minimum Depth	RC-1	Drywall	Floor Covering	Minimum AccuCrete Thickness	AccuQuiet Sound Mat	STC	IIC	STC	ПС
L528	L521				12" w/o ceiling damper 18" with ceiling damper		1 layer of 5/8"	Sheet Vinyl				53		G954 113-1
L529	L579		19.1 mm / 3/4inch		12"			Luxury Vinyl Plank			57		G9540.09- 113-11-R1	
<u>L534</u>	M500				18"			Luxury Vinyl Plank	25.4 mm / 1 inch	D18		58		G954
L542	M510		19.1 mm / 3/4 inch 1 inch minimum with sound mat		12"		2 layers 1/2"	Engineered Wood				59		G95- 113-
L546	M545				12"			Ceramic Tile				54		G95-
<u>L550</u>					12" w/o ceiling damper 18" with ceiling damper		1 layer of 5/8"	Sheet Vinyl				50		G53 113-
<u>L558</u>					12"			Engineered Wood				57		G53 113
L562					12" w/o ceiling damper 18" with ceiling damper			Ceramic Tile				54		G53
L563		D18, D25, DX38		Yes	18"	Yes		Luxury Vinyl Plank	19.1 mm / 3/4 inch			56		G53 113
L574								Luxury Vinyl Plank			58		G5325.12- 113-11-R1	
L576								LVT		D25		52	113 11 KI	G53
L581			19.1 mm/ 3/4inch					LVT			58		G5325.04- 113-11-R2	T
L583							2 layers	Sheet Vinyl				53	113-11-1(2	H29
L585					42 /		1/2"	Luxury Vinyl			57		H2989.09-	
L587					12" w/o ceiling damper 18" with ceiling damper			Plank Luxury Vinyl	25.4 mm / 1 inch			58	113-11-R0	H29
L592		<u> </u>						Plank Engineered				59		113 H29
								Wood Ceramic Tile				55		113 H29
M503														113 G95
M508								BARE FLOOR				50	C0520.40	113
M550								Luxury Vinyl Plank			59		G9530.10- 113-11-R1	_
		_			1/////		<u> </u>	Luxury Vinyl Plank		-177		53		G95
	0.		01				X	Sheet Vinyl				52		G95
00		40	0 0 0	relies	0		X	Sheet Vinyl				55		H32
-		19	MILLIAMA					Engineered Wood	25.4 mm / 1 inch	DX38		57		G95
	Wille	March 1	2					Engineered Wood	XV.			59		H32
1/11/11	8		F = 1					Ceramic Tile		,		54		G95
					920	731	SX '	Luxury Vinyl	XXX	<u> </u>	58		G9530.15-	113
. /				2	1 320	1		Plank Luxury Vinyl		8M1.		60	113-11-R1	H32
\mathcal{A}			1/10	7			W 11	Plank Quarry Tile		N. College		53		113 70:
3/1				7771	7			Sheet Vinyl			59	33	5012006	70.
	7		WE 11 11 11					Sheet Vinyl			-	51		70
3	7							laminate	19.1 mm / 3/4 inch	D18		55	N.	70:
	\				0/			Flooring						
	\		()		100	I	ı	Vinyl Plank	\	(1411)		51		701

			OPEN WEB/					SIGN			Sou Rat			Test mber
AccuCrete UL	Other UL	AccuQuiet	AccuCrete Minimum	Insulation	Framing Minimum	RC-1	Drvwall	Floor	Minimum AccuCrete	AccuQuiet Sound	STC	IIC	STC	IIC
Design	Other OL	Sound Mat	Thickness	modiacion	Depth		Diywan	Covering	Thickness	Mat	3.0		SIC	
<u>L577</u>	M521	D18, D25, Dx38	19.1 mm/ 3/4inch	yes	12"	yes	3 layers of 5/8							

					JR UL DESIG			_				und		Test mber
AccuCrete UL Design	Other UL	AccuQuiet Sound Mat	AccuCrete Minimum Thickness	Insulation	Framing Minimum Depth	RC-1	Drywall	Floor Covering	Minimum AccuCrete Thickness	AccuQuiet Sound Mat	STC	IIC	STC	IIC
<u>L518</u>							2 layers 5/8"	Sheet Vinyl				51		H4639.08- 113-11-R0
<u>L530</u>					9-1/2"		2 layers of 1/2" or 5/8"	LVT			60		H4639.09 -113-11- R0	
<u>L570</u>					9-1/2" deep/ 19.2" oc. Increased to 24" o.c. with insulation		2 layers of 1/2" or 5/8"	LVT	19.1 mm/ 3/4 inch	D25		54		H4639.10- 113-11-R0
<u>L581</u>		D18, D25,	19.1 mm/ 3/4inch	ves	10" wood joist, 12" parallel chord, 9- 1/2" I joist	ves		Luxury Vinyl Plank				50		H4639.11- 113-11-R0
<u>L583</u>		Dx38	, -,	,	10" wood joist, 12" parallel chord, 9- 1/2" I joist	,	2 layers of 5/8"	Engineered Wood				55		H4639.12- 113-11-R0
<u>L589</u>								Ceramic Tile				52		H4639.13- 113-11-R0
<u>M502</u>					0.4/01		2 layers of 1/2" or 5/8"							
<u>M506</u>				9-1/2"		2 layers of 1/2" or 5/8"								
M535 M553							2 layers of 5/8"							

			I JOIST 1-1/2								Sou Rat			Test nber
AccuCrete UL	Other UL	AccuQuiet	AccuCrete Minimum	Insulation	Framing Minimum	RC-1	Drywall	Floor	Minimum AccuCrete	AccuQuiet Sound	STC	IIC	STC	IIC
Design	Other OL	Sound Mat	Thickness	modiación	Depth		Drywan	Covering	Thickness	Mat	3.0		310	
<u>L547</u>		D18, D25,	10.1 mm./ 3/4in.eh	no	0.1/2"		2 layers 1/2"							
M544		Dx38	19.1 mm/ 3/4inch	yes	9-1/2"	yes	2 layers 5/8"							

			I JOIST 2 HO								Sou Rat	-		Test nber
AccuCrete UL Design	Other UL	AccuQuiet Sound Mat	AccuCrete Minimum Thickness	Insulation	Framing Minimum Depth	RC-1	Drywall	Floor Covering	Minimum AccuCrete Thickness	AccuQuiet Sound Mat	STC	IIC	STC	IIC
<u>L538</u>		D18,D25, DX 38	19.1 mm/ 3/4 inch	no	9- 1/2"	yes	3 layers 5/8"							

			2 X 10 WOO	D JOIST/ I	DIMMENSIO	NAI	L LUMBE	R 1/2 -3	3/4 HOUR UL I	DESIGNS	Sou	-		Test nber
AccuCrete UL Design	Other UL	AccuQuiet Sound Mat	AccuCrete Minimum Thickness	Insulation	Framing Minimum Depth	RC-1	Drywall	Floor Covering	Minimum AccuCrete Thickness	AccuQuiet Sound Mat	STC	IIC	STC	IIC
L506 L509	7	D40 D25 DV	No.	no		no	1 layer 5/8"							
L520	9	D18,D25, DX 38	19.1 mm/ 3/4 inch	yes	10"	yes	1 layer 1/2" 1 layer 5/8"							001>
M504		11000		no		no	1 layer 5/8"							

			2X10 WOOD	JOIST/	DIMMENSIO	NAL	LUMBER	R 1 HOU	IR UL DESIGN	s		und ing		Test mber
AccuCrete UL	Other UL	AccuQuiet	AccuCrete Minimum	Insulation	Framing Minimum	RC-1	Drywall	Floor	Minimum AccuCrete	AccuQuiet Sound	STC	IIC	STC	IIC
Design L006	L545	Sound Mat	Thickness 25.4 mm/ 1 "		Depth	no	•	Covering	Thickness	Mat	0.0		0.0	
<u>L201</u>	L569		3/4" w/o sound mat, 1"	ves no	1	no	dwss							
		·	with sound mat 3/4" w/o sound mat, 1"	110		110	dwss							
<u>L202</u>	L588		with sound mat	no		no	dwss							
<u>L206</u>	M514		19.1 mm/ 3/4"	yes		no	lay in panels							
L209	M517		3/4" w/o sound mat, 1" with sound mat	no		no	dwss							
<u>L210</u>	M518		3/4" w/o sound mat, 1"	no		no	dwss							
	11.510		with sound mat	0	1		insulated							
<u>L212</u>	M531		3/4" w/o sound mat, 1" with sound mat	no	10"	no	ceiling membrane							
<u>L501</u>			19.1 mm/ 3/4"	no	10"	no	1 layer of 5/8"							
L502			19.1 mm/ 3/4"	yes		yes	1 layer of							
L503			3/4" w/o sound mat, 1"	no		no	1/2" 1 layer of							
<u>L303</u>			with sound mat	110		110	1/2"							
<u>L504</u>			19.1 mm/ 3/4"	no		no	1 layer of 1/2"							
L507			19.1 mm/ 3/4"	yes		no	1 layer of 1/2"							
L508			3/4" w/o sound mat, 1"	yes	1	yes	1 layer of							
			with sound mat				5/8" 1 layer of							
<u>L512</u>			19.1 mm/ 3/4"	no		no	1/2"							
<u>L513</u>			19.1 mm/ 3/4"	yes	2" x 10" 24" o.c.	yes	1 layer of 5/8"							
<u>L514</u>			19.1 mm/ 3/4"	yes		yes	1 layer of 1/2"							
<u>L515</u>			19.1 mm/ 3/4"	yes		yes	1 layer of 1/2"							
<u>L516</u>			19.1 mm/ 3/4"	yes		yes	1 layer of 5/8"							
<u>L517</u>			19.1 mm/ 3/4"	no		yes	1 layer of 1/2"							
<u>L519</u>			3/4" w/o sound mat, 1" with sound mat	no		no	1 layer of 1/2"							
<u>L522</u>			3/4" w/o sound mat, 1" with sound mat	no	1011	no	1 layer of 1/2"							
L523			3/4" w/o sound mat, 1" with sound mat	no	10"	yes	1 layer of 5/8"							
L525			19.1 mm/ 3/4"	no		yes	1 layer of 5/8"							
<u>L526</u>			3/4" w/o sound mat, 1" with sound mat	no	1	no	dwss							
L533			19.1 mm/ 3/4"	yes		yes	1 layer of 5/8"							
L535			19.1 mm/ 3/4"	yes		yes	1 layer of							
					1	_	1/2" 1 layer of					Н		
<u>L537</u>			19.1 mm/ 3/4"	no		no	1/2"							
L539			19.1 mm/ 3/4"	yes	2" x 10" 24" o.c.	no	1 layer of 5/8"							
<u>L540</u>			19.1 mm/ 3/4"	yes	2" x 8" 16" o.c. 2' x 10" 24" o.c.	no	1 layer of 5/8"							
<u>L581</u>			19.1 mm/ 3/4"	yes	2"x10"/16" o.c. , 12" open web/ 24" o.c., 9-1/2" I Joist/24"o.c.	yes	2 layers 5/8"							
<u>L583</u>			19.1 mm/ 3/4"	yes	10" wood joist, 12" parallel chord, 9-1/2" I joist	yes	2 layers 5/8"							
<u>L590</u>	\ \		25.4 mm/ 1 "	yes	2"x10"/16"o.c. increased to 24" o.c. when battens are used	yes	1 layer of 5/8"							
<u>L593</u>		11	19.1 mm/ 3/4"	yes	2"x10"/16"o.c. increased to 24" o.c. when battens are used	yes	1 layer of 5/8"	26						
M519	1//		19.1 mm/ 3/4"	yes		yes	1 layer of							
M530	/ /		19.1 mm/ 3/4"	no	10"	no	5/8" 1 layer of							
0			ATTITUTE .	110	10"		5/8"						1111	
M538		TI.	19.1 mm/ 3/4"	no	TDIE V	no	1 layer of 5/8"		9 × 010 × 9	00 1111 00				-

			2 X 10 WC	OD JOI	STS/DIMMENS	ION/	AL LUMB	ER 1-1/	2 HOUR UL D	ESIGNS		und ting		Test mber
AccuCrete UL	Other UL	AccuQuiet		Insulation	Framing Minimum	RC-1	Drywall	Floor	Minimum AccuCrete	AccuQuiet Sound	STC	IIC	STC	IIC
Design		Sound Mat	Minimum Thickness		Depth		,	Covering	Thickness	Mat				
<u>L211</u>				no		no	insulated ceiling membrane							
<u>L505</u>		D18, D25,	40.4 (0./4)	110	10"		2 layers 5/8"							
L511		DX38	19.1mm/3/4"				2 layers 5/8"							
L536						yes	2 layers 5/8"							
L541				yes			4.1 5.00							
L556				no	8"		1 layer 5/8"			·				

	STRUCTURAL STEEL I HOUR UL DESIGN													Test mber
AccuCrete UL	Other UL	AccuQuiet	AccuCrete	Insulation	Framing Minimum	RC-1	Drvwall	Floor	Minimum AccuCrete	AccuQuiet Sound	STC	IIC	STC	IIC
Design	Other OL	Sound Mat	Minimum Thickness	iiisulatioii	Depth	NC-1	Diywan	Covering	Thickness	Mat	310		310	
L524		D18, D25,	40.4 / 2 / 4	no	7"	no	2 layers 1/2"							
L560		DX38	19.1 mm/ 3/4"	yes	10'	yes	1 layer 5/8"							

				TEEL TR	USS/ STEEL DE	СК 1	OR 2 HO				Sou Rat	ınd ing		Test mber
AccuCrete UL	Other UL	AccuQuiet	AccuCrete Minimum Thickness	Insulation	Framing Minimum	RC-1	Drywall		Minimum AccuCrete Thickness		STC	IIC	STC	IIC
Design G578	G551	Sound Iviat	iviinimum inickness		Depth 9-1/4"		1 layer 5/8"	Covering	Inickness	Mat				
G579	G553		1 inch		9-1/4"		1-2 layers 5/8"							
G581	G560			Yes	8"	Yes								
G592	G563	D18,D25,			10"	l	1 layer 5/8"							
<u>M513</u>	G566	DX38	19.1 mm/ 3/4 inch		prefabricated various depths		1 layer 5/6							
	G574													
	G587													
	G597													

STEEL TRUSS/STEEL DECK 2 HOUR DESIGNS												ınd ing	Lab Test Number	
AccuCrete UL Design	Other UL	AccuQuiet Sound Mat	AccuCrete Minimum Thickness	Insulation	Framing Minimum Depth	RC-1	Drywall	Floor Covering	Minimum AccuCrete Thickness	AccuQuiet Sound Mat	STC	IIC	STC	IIC
G577 G580 G582		D18, D25, DX38	25.4 mm/ 1"	yes	9-1/4"	yes	1 layer 5/8"							

STEEL JOIST/TRUSS AND PLYWOOD SUBFLOOR I HOUR UL DESIGNS											Sound Rating		Lab Test Number	
AccuCrete UL Design	Other UL	AccuQuiet	AccuCrete Minimum Thickness	Insulation	Framing Minimum Depth	RC-1	Drywall	Floor Covering	Minimum AccuCrete Thickness	AccuQuiet Sound Mat	STC	IIC	STC	IIC
L543	L564	Journa Iviat	19.1 mm/ 3/4 inch		8"	yes		Covering	HIICKHESS	IVIAL				
L549	L567	D18. D25.			various depending upon									
L551	2507	DX38		yes								\vdash		
L573					manufacturer									

	STEEL JOIST/PLYWOOD SUBFLOOR 1-1/2 HOUR UL DESIGNS										Sound Rating		Lab Test Number		
ı	AccuCrete UL Design	Other UL	AccuQuiet	AccuCrete Minimum Thickness	Insulation	Framing Minimum Depth	RC-1	Drywall	Floor Covering	Minimum AccuCrete Thickness	AccuQuiet Sound Mat	STC	IIC	STC	IIC
ł	Design			Wilnimum Thickness		Depth			Covering	Inickness	IVIAL				\vdash
	<u>L527</u>		D18, D25, DX38	19.1 mm/ 3/4"	no	9-3/8"	yes	2 layers 5/8"							

	PRECAST CONCRETE 1, 2, AND 3 HOUR UL DESIGNS AccuCrete UL Concrete AccuQuiet AccuCrete Minimum AccuCrete Minimum AccuCrete Minimum AccuQuiet Sound													Test mber
AccuCrete UL Design	Other UL	AccuQuiet Sound Mat	AccuCrete Minimum Thickness	Insulation	Framing Minimum Depth	RC-1	Drywall	Floor Covering	Minimum AccuCrete Thickness	AccuQuiet Sound Mat	STC	IIC	STC	IIC
<u>J917</u>	J991		1/2" w/o sound mat, 3/4" with sound mat		normal weight precast concrete	」 Ⅰ	no	BARE FLOOR	none	none	56	30	I1394.12- 113-11-R0	I1394.13- 113-11-R0
<u>J920</u>				no	normal weight precast concrete			7.8 mm LVT	DX38	25.4 mm/ 1 inch	55	50		I1394.15- 113-11-R0
<u>J927</u>		D18, D25, DX38	19.1 mm/ 3/4"		6"			12.7 mm Engineered Wood	DX38	25.4 mm/ 1 inch		51		I1394.16- 113-11-R0
<u>J931</u>		DASO			8"			7.8 mm Ceramic Tile	DX38	25.4 mm/ 1 inch		51		I1394.17- 113-11-R0
<u> J957</u>				spray				Carpet/pad	DX38	25.4 mm/ 1 inch		83		I1394.18- 113-11-R0
<u> 1958</u>														

	PRECAST CONCRETE 1-1/2, 2, 3 AND 4 HOUR UL DESIGNS												Lab Test Number	
AccuCrete UL Design	Other UL	AccuQuiet Sound Mat	AccuCrete Minimum Thickness	Insulation	Framing Minimum Depth	RC-1	Drywall	Floor Covering	Minimum AccuCrete Thickness	AccuQuiet Sound Mat	STC	IIC	STC	IIC
<u>1994</u>		Journal Mar	2 hour- 1/2" thick underlayment 3 hour-1" thick underlayment					coreg	·······································					
<u>1991</u>		D18,D25, DX38	3 hour- 1/2" thick underlayment 4 hour-5/8" thick uderlayment 2,3 hour- no topping 4 hour- 1/2"thick underlayment	no	10"	no	no							

	PRECAST CONCRETE 2, 3, AND 4 HOUR UL DESIGNS												Lab Test Number	
AccuCrete UL Design	Other UL	AccuQuiet Sound Mat	AccuCrete Minimum Thickness	Insulation	Framing Minimum Depth	RC-1	Drywall	Floor Covering	Minimum AccuCrete Thickness	AccuQuiet Sound Mat	STC	IIC	STC	IIC
<u>J919</u>		D18, D25, DX38	19.1 mm/ 3/4"	spray	normal weiight precast concrete units	no	no							
		no	2 hour- no minimum 3 hour- 1/2" thick		8"									
J924		D18, D25, DX38	4 hour- 3/4" thick	no										
		no	2 hour- no minimum 3 hour- no minimum	Ī	10"									
			4 hour- 1/2" thick											

For more information on any of the UL designs, sound test results, or for any other question, please contact us.

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