

WHEN IT COMES TO HIGH STRENGTH UNDERLAYMENTS,
ONE COMPANY WROTE THE BOOK

MAXXON®

- MULTIFAMILY
- COMMERCIAL
- SINGLE FAMILY
- RENOVATION
- UNDERLAYMENTS
- SOUND CONTROL MATS
- SURFACE APPLIED MOISTURE VAPOR TREATMENTS



GREEN FORMULATIONS

THE *ONLY* UNDERLAYMENTS WITH GREENGUARD® CERTIFICATION
SEE PAGE 12

STEEL JOIST/METAL DECKING

1 & 2 HOUR FIRE RATING
SEE PAGES 6 & 7

MAXXON

THE FLOOR SPECIALISTS

www.maxxon.com

MAXXON[®] UNDERLAYMENTS

GYP-CRETE[®] WAS ONLY THE BEGINNING...

Since gypsum first met sand in 1972, Gyp-Crete, now Maxxon Corporation, has provided superior underlayment products for solving virtually any floor problem. Maxxon not only started the industry, but continues to lead it with high quality green building products, training, research and expert installation by a North American network of authorized dealers.



Proven on Over
3.5 Billion Square Feet

FEATURES/BENEFITS

- Smooth, flat surface
- Fire resistant — over 100 UL Fire Designs
- Better sound control
- Efficient application and fast drying time
- No harmful urea formaldehyde
- Won't delaminate
- Won't shrink crack

APPLICATIONS

MULTIFAMILY

Sound and fire control are the primary reasons for specifying Gyp-Crete 2000[®]/3.2K in multifamily designs, but general contractors also prefer our underlayments for their quick installation, fast drying time and minimum preparation requirements. Gyp-Crete 2000/3.2K, Dura-Cap[®] and Commercial Topping[®] are the higher strength, faster drying choices for areas that will receive glue-down floor goods. A six-person crew can pour up to 40,000 square feet (3,716 m²) in a single day. And with our fast set time, other light subgrades can be scheduled within 24 hours.

RENOVATION

Gyp-Crete 2000/3.2K, Dura-Cap, and Commercial Topping take worn, uneven floors and make them flat and smooth. Poured from a featheredge to three inches deep, they fill cracks and voids left after walls are removed. Perfect for renovations over wood, concrete and old floor coverings.

COMMERCIAL

Dura-Cap or Commercial Topping Floor Underlayments make any irregular or damaged concrete floor like new. They can spot-patch depressions or smooth an entire floor. Plus they attain compressive strengths of up to 4,500 psi (31 MPa). Dura-Cap and Commercial Topping are also easily poured over steel decking in steel frame construction. For new wood-frame commercial buildings, Gyp-Crete 2000/3.2K, Dura-Cap and Commercial Topping provide strong underlayment options.

SINGLE FAMILY

Builders appreciate Gyp-Crete 2000/3.2K because it won't warp or delaminate like plywood, and it helps eliminate squeaks and nail pops. Homeowners like Gyp-Crete 2000/3.2K because it makes their homes more energy efficient, fire resistant and comfortable. And because it seals the base of every room, it helps keep out insects and other pests. For homeowners who opt for radiant floor heating, Therma-Floor[®] is the underlayment of choice. It provides all the benefits of Gyp-Crete 2000/3.2K, plus special additives to meet the demands of this increasingly popular heating system.

SELF-LEVELING APPLICATIONS

Level-Right[®] Self-Leveling Floor Underlayments are ideal for floors that need a fast facelift. With compressive strengths up to 7,200 psi (50 MPa), they can be poured from a featheredge to deepfill, providing a smooth, level new surface that dries quickly and can be walked on in just two hours. Level-Right WearTop[®], a Self-Leveling Floor Topping, provides a new, smooth wear surface with equally speedy installation and drying time. See Maxxon Corporation's *Thick & Thin* brochure for additional information.

CHOOSING THE RIGHT FLOOR UNDERLAYMENT

TYPE OF APPLICATION	TYPE OF SUBFLOOR	GYP-CRETE	GYP-CRETE 2000/3.2K	THERMA-FLOOR	DURA-CAP	COMMERCIAL TOPPING
MULTI-FAMILY	Wood-New	●	●		■	■
	Wood-Renovation		●		■	■
	Concrete-New		●		■	■
	Concrete-Renovation		●		■	■
	Steel deck				●	●
	Radiant heating			●		
SINGLE FAMILY	Wood-New		●		■	■
	Wood-Renovation		●		■	■
	Concrete-New		●		●	●
	Concrete-Renovation				●	●
	Radiant heating			●		
COMMERCIAL	Wood-New		■		●	●
	Wood-Renovation		■		●	●
	Concrete-New		■		●	●
	Concrete-Renovation		■		●	●
	Steel deck				●	●
	Radiant heating			●		
	Wood-encapsulating V.A.T		■		●	■
	Concrete-encapsulating V.A.T		■		●	●

● Recommended product.

■ Acceptable alternative. Consult your Maxxon dealer.



GYP-CRETE

Gyp-Crete Floor Underlayment is one of the most efficient fire and sound control products available for multifamily construction. Standing the test of time since 1972, Gyp-Crete makes for safer, quieter living, and has become a standard in apartments, condominiums, townhomes, hotels and motels nationwide.



GYP-CRETE 2000/3.2K

Engineered to deliver compressive strengths up to 3,200 psi (22.1 MPa), Gyp-Crete 2000/3.2K also delivers enhanced resistance to surface abrasion and even faster drying time than Gyp-Crete. It's ideal for use over wood or concrete subfloors in single family, multifamily and light commercial construction, as well as renovation projects. Its surface provides a perfect base for practically any floor covering.



THERMA-FLOOR

Therma-Floor is a gypsum underlayment designed to pour over hot water tubes or electric heating cables. It acts as the thermal mass for any radiant floor system. Therma-Floor encases the tubes or cables in non-combustible gypsum. Its special formula resists breakdown to 150 °F (66 °C). And because it's poured at a minimum of 1 1/4" (32 mm) thick, the heating system is more responsive and more comfortable.





DURA-CAP ^M

To smooth concrete slabs, precast planks, or steel deck, use Dura-Cap®. It's formulated to cap rough, pitted, cracked and out-of-level concrete. And with a compressive strength of up to 4,000 psi (27.4 MPa), Dura-Cap meets ASTM F710, "Preparing Concrete to Receive Resilient Flooring." In renovation projects, it can be poured directly over old tile and adhesive residue. Gyp-Crete 2000/3.2K and Dura-Cap can also be used over vinyl asbestos tile. Consult your Maxxon dealer for more details on this safe and extremely cost-effective method of abatement.

DURA-CAP ^M

Floor Underlayment

COMMERCIAL TOPPING ^M

Fast drying Commercial Topping is poured from a featheredge to 3" (76 mm) in new construction or renovation projects. With compressive strengths of up to 4,500 psi (31 MPa), it's the ideal underlayment to meet ASTM F710, "Preparing Concrete to Receive Resilient Flooring." Plus it pours over VAT, VCT, terrazzo or ceramic, with no shotblasting required. For the ultimate strong, smooth finish over concrete, precast, steel deck, wood frame, and old, cracked lightweight, specify Commercial Topping.

Commercial TOPPING ^M

Ultimate Strength Floor Underlayment

MAXXON FLOOR UNDERLAYMENTS TECHNICAL DATA

	GYP-CRETE		GYP-CRETE 2000/3.2K		THERMA-FLOOR		DURA-CAP		COMMERCIAL TOPPING	
USES	Multifamily		Multifamily, Light Commercial, Single Family		Radiant Floor Heating		Commercial, Multifamily		Commercial, Institutional	
COMPRESSIVE STRENGTH	Up to 2,200 psi (15 MPa)		Up to 3,200 psi (22 MPa)		Typical range of 2,000 to 3,000 psi (14–21 MPa)		Typical range of 2,500 to 4,000 psi (17–28 MPa)		Typical range of up to 4,500 psi (28–31 MPa)	
"K" FACTOR	4.75 (Btu•in)/(h•ft²•°F) (.6840 W/[m•°C])		5.15 (Btu•in)/(h•ft²•°F) (.7416 W/[m•°C])		4.96 (Btu•in)/(h•ft²•°F) (.7142 W/[m•°C])		4.76 (Btu•in)/(h•ft²•°F) (.6854 W/[m•°C])			
SPECIFIC HEAT	.223 Btu/(lb•°F) at 85 °F (.9343 kJ[kg•°C]at 29.44 °C)		.222 Btu/(lb•°F) at 85 °F (.9301 kJ[kg•°C]at 29.44 °C)		.224 Btu/(lb•°F) at 85 °F (.9385 kJ[kg•°C]at 29.44 °C)		.229 Btu/(lb•°F) at 85 °F (.9595 kJ[kg•°C]at 29.44 °C)			
WEIGHT (approximate)	3/4"	6.9 lbs/ft² (33.7 kg/m²)	3/4"	7.2 lbs/ft² (35.1 kg/m²)	3/4"	7.2 lbs/ft² (35.1 kg/m²)	3/4"	7.2 lbs/ft² (35.1 kg/m²)	1/2"	5.2 lbs/ft² (25.4 kg/m²)
	1"	9.2 lbs/ft² (44.9 kg/m²)	1"	9.6 lbs/ft² (46.8 kg/m²)	1"	9.6 lbs/ft² (46.8 kg/m²)	1"	9.6 lbs/ft² (46.8 kg/m²)	3/4"	7.8 lbs/ft² (38.1 kg/m²)
	1 1/2"	13.8 lbs/ft² (67.3 kg/m²)	1 1/2"	14.4 lbs/ft² (70.3 kg/m²)	1 1/2"	14.4 lbs/ft² (70.3 kg/m²)	1 1/2"	14.4 lbs/ft² (70.3 kg/m²)	1"	10.4 lbs/ft² (50.7 kg/m²)
									1 1/2"	15.6 lbs/ft² (76.1 kg/m²)
DRY DENSITY	110 lbs./ft³ (1,760 kg/m³)		115 lbs./ft³ (1,840 kg/m³)		115 lbs./ft³ (1,840 kg/m³)		115 lbs./ft³ (1,840 kg/m³)		125 lbs./ft³ (2,000 kg/m³)	
SURFACE BURNING CHARACTERISTICS (ASTM-E84)	Flame spread: 0 Fuel contributed: 0 Smoke density: 0		Flame spread: 0 Fuel contributed: 0 Smoke density: 0		Flame spread: 0 Fuel contributed: 0 Smoke density: 0		Flame spread: 0 Fuel contributed: 0 Smoke density: 0		Flame spread: 0 Fuel contributed: 0 Smoke density: 0	

Maxxon gypsum underlayments retain their strength when re-dried after being immersed in water for 30 days. Gyp-Crete Performance Test, Telco Report #9-018.

PROJECT SPOTLIGHTS



BLUE APARTMENTS MINNEAPOLIS, MN

Contractor: Frana Companies

Architect: BKV Group

Scope: 109,000 sq. ft. of Acousti-Mat® II
233,000 sq. ft. of Gyp-Crete 2000®/3.2K
121,000 sq. ft. of integrally pigmented
Level-Right® WearTop



THE BRIDGE AT FLORISSANT ST. LOUIS, MO

Contractor: HBD Contracting

Architect: Answers, Inc.

Scope: 54,266 sq. ft. of Dura-Cap® poured at 1"
over 9/16" metal decking

DETAIL DRAWINGS

PARALLEL CHORD TRUSS



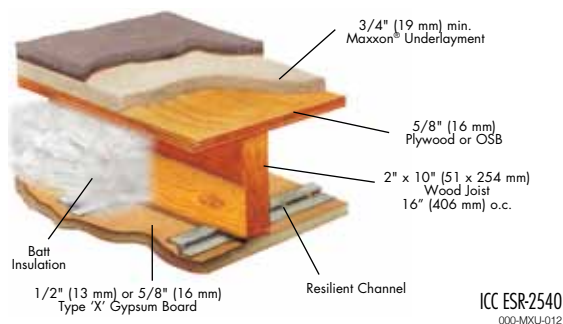
1 HR	w/ Insulation & Resilient Channel	L528, L546, L558, M503, M508
1 HR	w/ Resilient Channel (optional insulation)	L528, L534, L562, L563, L574, L579, L585, L592
1 HR	w/ Suspended Ceiling	L529
1 HR	Drywall Screwed Direct	L542
2 HR	w/ 3+ Layers of Drywall	L556, M500

I-JOIST



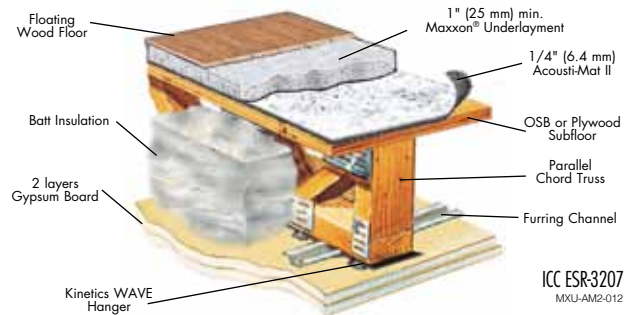
1 HR	w/ Insulation & Resilient Channel	L589, Warnock Hersey #J20050694
1 HR	w/ Resilient Channel	L518, L547
1 HR	w/ Simpson Strong-Tie Clips	L530
1 1/2 HR	Drywall Screwed Direct	ICC ESR-1153
2 HR	w/ 3 Layers of Drywall	L538, L556

2X10 DIMENSIONAL JOISTS WITH TYPE "X" GYPSUM BOARD



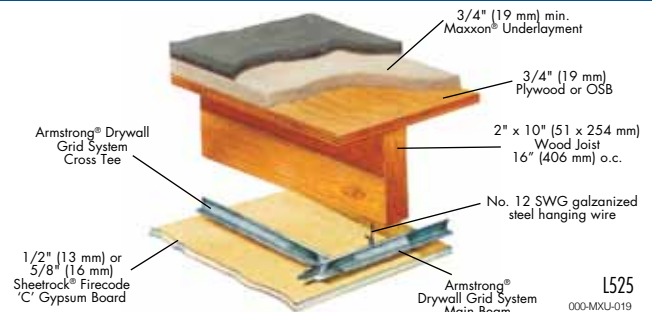
1 HR	w/ Insulation & Resilient Channel	ICC ESR-2540
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PARALLEL CHORD TRUSS WITH KINETICS



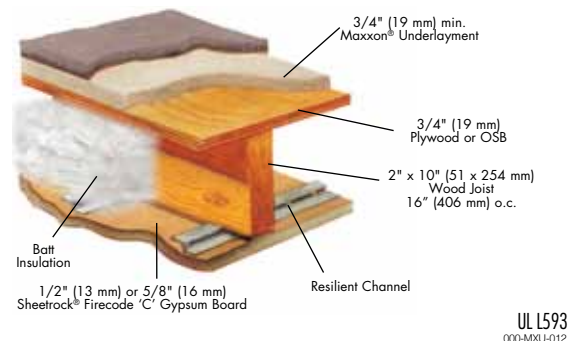
1 HR	w/ Kinetics Ceiling Hangers	L581, L583, ICC ESR-3207
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2X10 DIMENSIONAL JOISTS WITH DROP CEILING



1 HR	w/ Suspended Ceiling Tiles	L006, L201, L202, L206, L209, L210, L212
1 HR	Suspended Drywall	L525, L526

2X10 DIMENSIONAL JOISTS

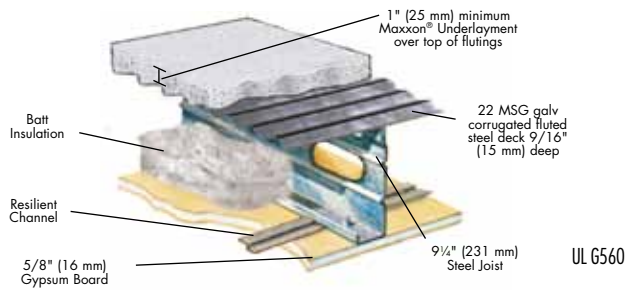


1/2 HR	Drywall Screwed Direct	L509
3/4 HR	Drywall Screwed Direct	L506, M504
3/4 HR	w/ Resilient Channel & Insulation	L520
1 HR	Drywall Screwed Direct	L501, L503, L507, L512, L519, L522, L523, L537, L557, L588
1 HR	w/ Furring Channel	L515
1 HR	w/ Resilient Channel	L514, L516, L517, L523, L533, L535, L545, L593
1 HR	w/ Resilient Channel & Insulation	L502, L513, L516, L533, L545, L593, M514
1 HR	w/ Kinetics Ceiling Hangers	L581, L583
1 HR	Independent Rafter Ceiling	L539, L540
1 1/2 HR	w/ 2 Layers of Drywall	L510
2 HR	w/ 2 Layers of Drywall	L505, L511, L536, L541
2 HR	w/ 4 Layers of Drywall	L556
2 HR	Independent Rafter Ceiling	L211

For specific construction details related to each UL Code, please refer to the intended code's specification, which can be found at www.UL.com and www.UL.com/canada/eng/pages.

LIGHT GAUGE STEEL JOIST CONSTRUCTION

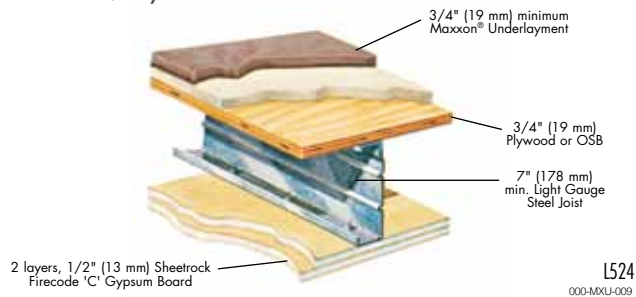
Steel Joist/Corrugated Steel Deck



1, 1 1/2, 2, 3 HR	Vulcraft Steel Deck	G561
1, 2 HR	Deitrich Joist	G560*
1, 2 HR	Gateway Joist	G566
2 HR	Marino\WARE Joist	G563
2 HR	NUCON NUJoist	G576
2 HR	CEMCO Joist	G574

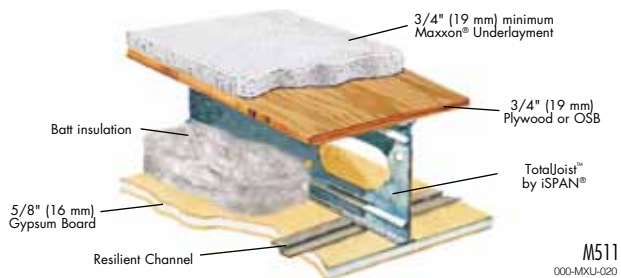
*Now includes 6" and 8" C Joists. For more information contact Maxxon Corporation.

Steel Joist/Plywood or OSB



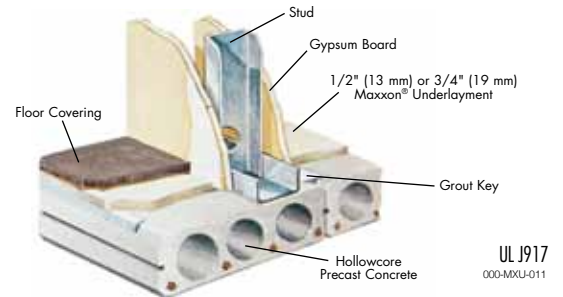
1 HR	Drywall Screwed Direct	L524
1 HR	Independent Rafter Ceiling	L543
1 HR	w/ Viroc Subfloor	L564
1 HR	w/ Insulation & Resilient Channel	M505, M513
1 1/2 HR	w/ Resilient Channel & 2 Layers of Drywall	L527, L599
2 HR	w/ 4 Layers of Drywall	L556

TotalJoist™ by iSPAN®



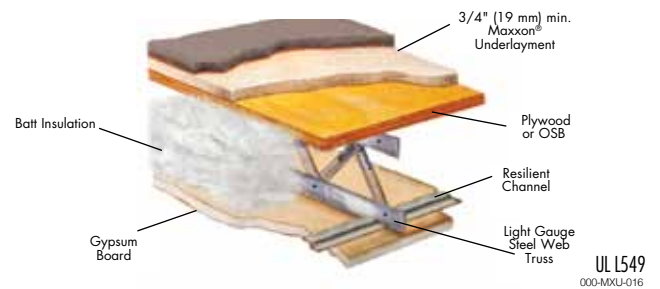
UL	1 HR	Plywood, OSB or Steel Deck	M511
UL	1 HR	Plywood, OSB	M515
ULC	1 HR	Plywood, OSB or Steel Deck	M520
ULC	1 HR	Steel Deck	M521
ULC	1.5, 2 HR	Steel Deck	I530
UL	2 HR	Steel Deck	G587

PRECAST CONCRETE



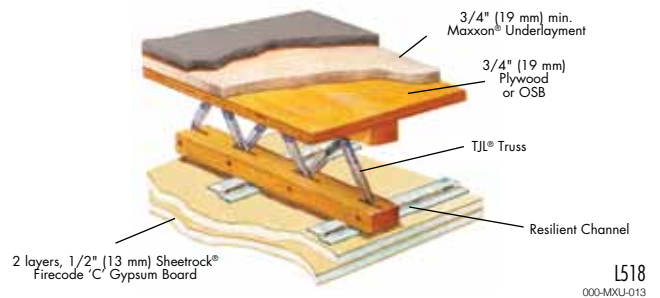
2 HR	J917, J927, K906
1 1/2, 2, 3, 4 HR	J991, J994
2, 3 HR	J920, J931, J957, J958
2, 3, 4 HR	J919, J924, J966

LIGHT GAUGE STEEL WEB TRUSS



1 HR	w/ Insulation & Resilient Channel	L549, L551, L552, L560
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TJL TRUSS



1 HR	w/ Resilient Channel	L518
2 HR	w/ 3 Layers of Drywall	L538
1, 2 HR	Several Options	ICC ESR-1774

DOUBLE T CONCRETE



2, 3, 4 HR	J804, J805
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FIRE RATINGS & SOUND TESTS

FIRE RATINGS – UL DESIGN

#	HOUR RATING	TYPE OF CONSTRUCTION
G524	1, 1.5, 2	Hambro Systems
G560	1, 2	Dietrich Industries Steel Joist, 24" o.c. with 22 MSG Corrugated Steel Deck
G561	1, 1.5, 2, 3	Vulcraft Corrugated Steel Floor and Form Units topped with 2½" Concrete
G563	1, 2	MarinoWARE Steel Joist, 24" o.c. with 22 MSG Corrugated Steel Deck
G566	1, 2	Gateway Panel Steel Joist, 24" o.c. with 22 MSG Corrugated Steel Deck
G574	1, 2	California Expanded Metal Company Steel Joist, 24" o.c. with 22 MSG Corrugated Steel Deck
G576	2	NUJOIST Steel Joists, 24" o.c. with 22 MSG Corrugated Steel Deck
G587	2	TotalJoist by iSPAN® with 22 MSG Corrugated Steel Deck
J917	2	Precast Concrete
J919	3	Precast Concrete
J920	3	Precast Concrete
J924	3, 4	Precast Concrete
J927	2	Precast Concrete
J931	3	Precast Concrete
J957	3	Precast Concrete
J958	2, 3	Precast Concrete
J991	2, 3	Precast Concrete
J994	1.5, 2, 3, 4	Precast Concrete
L006	1	2" x 10" Wood Joist/Suspended Ceiling Tiles
L201	1	2" x 10" Wood Joist/Suspended Ceiling Tiles
L202	1	2" x 10" Wood Joist/Suspended Ceiling Tiles
L206	1	2" x 10" Wood Joist/Suspended Ceiling Tiles
L208	1.5	2" x 10" Wood Joist
L209	1	2" x 10" Wood Joist/Suspended Ceiling Tiles
L210	1	2" x 10" Wood Joist/Suspended Ceiling Tiles
L211	2	2" x 10" Wood Joist/Independent Rafter Ceiling
L212	1	2" x 10" Wood Joist/Suspended Ceiling Tiles
L501	1	2" x 10" Wood Joist/Drywall Screwed Direct
L502	1	2" x 10" Wood Joist/Resilient Channel
L503	1	2" x 10" Wood Joist/Drywall Screwed Direct
L504	1	2" x 10" Wood Joist/Sound Board/Gypsum Board
L505	2	2" x 10" Wood Joist/2 Layers of Gypsum Board
L506	4.75	2" x 10" Wood Joist/Drywall Screwed Direct
L507	1	2" x 10" Wood Joist/Drywall Screwed Direct
L508	1	4" x 10" (or Double Layer 2" x 10") Wood Joist/Furring Channels
L509	.5	2" x 10" Wood Joist/Drywall Screwed Direct
L510	1.5	2" x 10" Wood Joist/Furring Channel/2 Layers of Gypsum Board
L511	2	2" x 10" Wood Joist/2 Layers of Gypsum Board
L512	1	2" x 10" Wood Joist/Drywall Screwed Direct
L513	1	2" x 10" Wood Joist/Resilient Channel
L514	!	2" x 10" Wood Joist/Resilient Channel
L515	1	2" x 10" Wood Joist/Furring Channel or Resilient Channel

#	HOUR RATING	TYPE OF CONSTRUCTION
L516	1	2" x 10" Wood Joist/Resilient Channel
L517	1	2" x 10" Wood Joist/Resilient Channel
L518	1	2" x 10" Wood Frame/TJI®/Resilient Channel
L519	1	2" x 10" Wood Joist/Drywall Screwed Direct
L520	.75	2" x 10" Wood Joist*/Batt Insulation
L522	1	2" x 10" Wood Joist/Drywall Screwed Direct
L523	1	2" x 10" Wood Joist/Resilient Channel
L524	1	Light Gauge Steel/Plywood Deck/Drywall Screwed Direct
L525	1	2" x 10" Wood Joist/Suspended Ceiling
L526	1	2" x 10" Wood Joist/Suspended Ceiling
L527	1.5	Steel Joist/ Resilient Channel/2 Layers of Gypsum Board
L528	1	Parallel Chord Truss/Batt Insulation/Resilient Channel
L529	1	Parallel Chord Truss/Suspended Ceiling
L530	1	TJI® Wood Joist/Simpson Strong Clips
L532	1.5	2" x 10" Wood Joist/2 Layers of Gypsum Board
L533	1	2" x 10" Wood Joist/Resilient Channel
L534	1	Parallel Chord Truss/Resilient Channel
L535	1	2" x 10" Wood Joist/Resilient Channel
L536	2	2" x 10" Wood Joist/2 Layers of Gypsum Board
L537	1	2" x 10" Wood Joist/Drywall Screwed Direct
L538	2	2" x 10" Wood Joist/3 Layers of Gypsum Board
L539	1	2" x 10" Wood Joist*/Independent Rafter Ceiling
L540	1	2" x 10" Wood Joist*/Independent Rafter Ceiling
L541	2	2" x 10" Wood Joist/Resilient Channel/2 Layers of Drywall Screwed Direct
L542	1	Parallel Chord Truss/Furring Channels/Drywall Screwed Direct
L543	1	Steel Joist/Wood Subfloor/Independent Rafter Ceiling
L545	1	2" x 10" Wood Joist/Resilient Channel
L546	1	Parallel Chord Truss/Batt Insulation/Resilient Channel
L547	1.5	TJI®/Resilient Channel
L549	1	Steel Chord and Web Truss*/Batt Insulation/Resilient Channel
L551	1	Steel Chord and Web Truss*/Batt Insulation/Resilient Channel
L552	1	Steel Chord and Web Truss*/Batt Insulation/Resilient Channel
L556	2	Willamette I Beam Truss*/4 Layers of Gypsum Board
L557	1	2" x 10" Wood Joist/Drywall Screwed Direct
L558	1	Parallel Chord Truss/Batt Insulation/Resilient Channel
L560	1	Steel Truss/Wood Subfloor/Batt Insulation/Resilient Channel
L562	1	Parallel Chord Truss/Resilient Channel
L563	1	Parallel Chord Truss/Resilient Channel
L564	1	Metal Joist/Viroc Subfloor/Batt Insulation/Resilient Channel /1 Layer 5/8" Type C Gypsum Board
L573	1	Steel Joists/Furring Channel
L574	1	Parallel Chord Truss/Resilient Channel
L579	1	Parallel Chord Truss/Resilient Channel

#	HOUR RATING	TYPE OF CONSTRUCTION
L581	1	Kinetics ICW Clip/Batt Insulation/2 layers 5/8" Gypsum Board
L583	1	Kinetics Isomax Clip/Batt Insulation/2 Layers 5/8" Gypsum Board
L585	1	Parallel Chord Truss/Resilient Channel
L588	1	2" x 10" Wood Joist/Drywall Screwed Direct/Radiant Tubes in Wall Plate
L589	1	Wood Joist/Batt Insulation/Resilient Channel/2 Layers 1/2" Gypsum Board
L592	1	Parallel Chord Truss/Resilient Channel
L593	1	2" x 10" Wood Joist/Resilient Channel
L599	1.5	NUJOIST Steel Joist, 24" o.c. with Wood Subfloor/Resilient Channel/2 Layers 5/8" Gypsum Board
M500	2	Parallel Chord Truss/3+ Layers of Gypsum Board
M503	1	Parallel Chord Truss/Batt Insulation/Resilient Channel
M504	.75	2" x 10" Wood Joist*/Drywall Screwed Direct
M505	1	Steel Joist/Batt Insulation/1 Layer of Gypsum Board with Resilient Channel/2 Layers of Gypsum Board without Resilient Channel
M508	1	Parallel Chord Truss/Batt Insulation/Resilient Channel
M511	1	TotalJoist by iSPAN®/Resilient Channel/1 Layer of Gypsum Board
M513	1	Steel Joist/Insulation/Furring Channel or Resilient Channel/1 Layer of Gypsum Board
M514	1	2" x 10" Wood Joist/Insulation/Resilient Channel
M515	1	TotalJoist by iSPAN® Steel Joist/Batt Insulation/Resilient Channel

UL DESIGN

#	HOUR RATING	TYPE OF CONSTRUCTION
I530	1.5, 2	TotalJoist by iSPAN®
L003	1	2" x 10" Wood Joist
L201	1	2" x 10" Wood Joist
L511	2	2" x 10" Wood Joist
L512	1	2" x 10" Wood Joist
M500	1	2" x 10" Wood Joist
M501	1	2" x 10" Wood Joist
M503	2	2" x 10" Wood Joist
M514	2	Parallel Chord Truss or Steel Frame
M520	1	TotalJoist by iSPAN®
M521	1	TotalJoist by iSPAN®

Other fire tests where Maxxon Underlayments have been used:

ICC ESR-1141	1	Nascon® Wood I Joist
ICC ESR-1153 (7 Assemblies)	1	TJI® Wood I Joist
ICC ESR-1305	1	Louisiana Pacific LP Solid Start I Joists
ICC ESR-1336	1	Boise BCI I Joists
ICC ESR-1774 (7 Assemblies)	1	TJI® Truss or Open Web Truss
ICC ESR-2540	1&2	Wood Frame, Concrete, Steel Deck
ITS (Wamock Hersey Test #120050694 Nascon®)	1	Wood I Joist
WH1-694-029 Wamock Hersey 1 Hour Bar Joist	1	Bar Joist

Fire Tests by Underwriters Laboratories, Inc., as shown in their current Fire Resistance Directory, or on their web site: www.ul.com. Contact Maxxon for copies of these tests. For specific construction details related to each UL Code, please refer to the intended code's specification, which can be found at www.ul.com and www.ul.com/canada/eng/pages. * Not pictured.

SOUND TESTS

Floor System	Maxxon Underlayments	Insulation	Resilient Channel	Ceiling Drywall	Floor Covering	Rating	Test Numbers
WOOD JOIST w/ 5/8" (16 mm) plywood subfloor 2"x10" (51 - 254 mm) joists	3/4" (19 mm)	Yes	Yes	5/8" (16 mm)	Carpet and Pad	73 IIC	IN85-38
	3/4" (19 mm)	Yes	Yes	5/8" (16 mm)	Carpet and Pad	57 STC	IN85-382
I-JOIST w/ 5/8" (16 mm) plywood subfloor	3/4" (19 mm)	Yes	Yes	5/8" (16 mm)	Carpet and Pad	70 IIC	IN86-6
	3/4" (19 mm)	Yes	Yes	5/8" (16 mm)	Carpet and Pad	58 STC	TL96-250
PARALLEL CHORD TRUSS 2" x 4" (51 x 102 mm) 12" deep with 3/4" (19 mm) T&G OSB, .4" (10.2 mm) Enkasonic	1½" (19 mm)	Yes	Yes	5/8" (16 mm)	None	59 F-STC	87-729-13
	1½" (19 mm)	Yes	Yes	5/8" (16 mm)	Carpet and Pad	83 F-IIC	87-729-7
PRECAST CONCRETE	1/2" (19 mm)	No	No	None	None	58 F-STC	5-896
	1/2" (19 mm)	No	No	None	Direct Glued Carpet	75 IIC	5-896-2
METAL JOIST 9½" (247 mm) w/ 3/4" (19 mm) T&G OSB subfloor	3/4" (19 mm)	Yes	Yes	5/8" (16 mm)	Carpet and Pad	51 F-STC	94-2168.1
	3/4" (19 mm)	Yes	Yes	5/8" (16 mm)	Carpet and Pad	73 F-IIC	94-2168.2
SPACEJOIST® METAL WEB TRUSS 16" deep w/ 3/4" (19 mm) T&G OSB subfloor	3/4" (19 mm)	Yes	Yes	5/8" (16 mm)	Carpet and Pad	70 F-IIC	51210-3
	3/4" (19 mm)	Yes	Yes	5/8" (16 mm)	Carpet and Tile	52 F-STC	51210-1

SOUND TEST INFORMATION FIC (Field Impact Insulation Class) sound tests were performed in accordance with ASTM E 1007 and E 989. FSTC (Field Sound Transmission Class) sound tests were performed in accordance with ASTM E 336 and E 492. Actual tests and assembly details are available upon request. Maxxon Underlayments and Acousti-Mat are but single components of an effective sound control system. No sound control system is better than its weakest component. Care must be taken in the installation of all components of construction to ensure the ultimate designed acoustical performance.

INSTALLING MAXXON UNDERLAYMENTS

GENERAL

ENVIRONMENTAL CONDITIONS — Maxxon Underlayments are for interior use only and should not be poured directly over a plastic vapor barrier. Before, during and after installation, building interior shall be enclosed and maintained at a temperature above 50 °F (10 °C).

SUBFLOOR REQUIREMENTS — The wood or concrete subfloor shall be structurally sound, broom clean and contaminant free. The subfloor must be adequate to withstand live and dead loads with a deflection limitation of L/360.* Before installation, general contractor shall inspect the wood floor for proper nailing. Any wood weakened or delaminated during construction shall be replaced. Stud wall baseplates in doorways and other openings are to be removed.

METHODS OF INSTALLATION

GYP-CRETE® AND GYP-CRETE 2000®/3.2K — With both Gyp-Crete and Gyp-Crete 2000/3.2K it's preferred to be poured after the drywall is installed. If it is necessary to pour before drywall installation, Gyp-Crete 2000/3.2K should be used. The minimum thickness varies with the type of floor system:

- Minimum wood frame construction is agency-approved 19/32" (15 mm), 40/20 veneer and non-veneer wood subfloors.
- Preferred wood frame construction for Maxxon Underlayment is 3/4" (19 mm) tongue-and-groove, agency-approved subfloor with truss, joist or beam spacings of 16" to 24" (406 mm - 609 mm) on-center.
- Over concrete, the minimum thickness of Gyp-Crete is 1/2" (13 mm). For Gyp-Crete 2000/3.2K, the minimum thickness is usually 3/8" (10 mm). However, the 1.4 mix design can be featheredged.

DURA-CAP® AND COMMERCIAL TOPPING® — Dura-Cap and Commercial Topping can be poured before or after drywall installation:

- Over concrete, the minimum thickness is usually 3/8" (10 mm). However, the 1.4 mix design can be featheredged.
- Over wood frame construction, the minimum thickness is 3/4" (19 mm).
- Over galvanized corrugated steel deck, underlayment is poured 1" (25 mm) over the top of the flutings, average pour thickness is 1 1/16" (39.2 mm).

THERMA-FLOOR® — The thickness of Therma-Floor varies with the type of radiant floor heating system. Therma-Floor is poured to a depth that is 3/4" (19 mm) above the tops of the tubes or cables. It can be poured before or after drywall is installed.

PRODUCT THICKNESS OVER WOOD SUBFLOORS

SUBFLOOR THICKNESS	TRUSS, BEAM OR JOIST SPACING	MINIMUM THICKNESS OF UNDERLAYMENT
19/32" (15 mm) [5/8"]	16–19.2" o.c. (406–487 mm)	3/4" (19 mm)
19/32" (15 mm) [5/8"]	19.2–24" o.c. (487–610 mm)	1" (25 mm)
23/32" (19 mm) [3/4"]	16–24" o.c. (406–610 mm)	3/4" (19 mm)

DRYING CONDITIONS

Before, during and after installation of a Maxxon Underlayment, building interior shall be enclosed and maintained at a temperature above 50 °F (10 °C) until structure and subfloor temperatures are stabilized.

Maxxon Gypsum Underlayments are inorganic and provide no source of nutrients to sustain mold growth. Prolonged contact of moisture with other construction materials, however, can result in mold growth. To avoid growth of mold on construction materials such as wallboard, drywall compound and even dust, it is vital to maintain a low relative humidity both before and after placement of Maxxon Gypsum Underlayments.

The general contractor must provide and maintain correct environmental conditions to keep the building clean and dry, and protect against infestation of moisture from a variety of potential sources. Moisture can be introduced by other trades through spillage, tracked in mud and rain, plumbing leaks, etc. Often stored in damp conditions, building products may arrive on-site laden with moisture that releases after installation. Outside sources such as rain, snow, wind, etc. can also increase moisture levels.

Controlling moisture levels in the building, through appropriate trade sequencing and prevention of potential damage by other trades, is the responsibility of the general contractor, who must supply mechanical ventilation and heat if necessary. Fast-track projects need to account for adequate dry time. These controls fall under the scope of work of the general contractor — not Maxxon Corporation nor the Maxxon Underlayment installer. For complete information on drying conditions, request a copy of Maxxon's *Building Conditions Guide*.

TESTING

For gypsum underlayments, compressive strength testing must be performed in accordance with modified ASTM C472. Before independent sampling, contact the Maxxon Quality Control Department to ensure that proper procedures are followed.

ACOUSTICAL PERFORMANCE

The authors of the International Building Code, the International Code Council, released an Acoustical Guideline to supplement the current code. ICC G2 - 2010 Acoustics recommends two grades of acoustical performance beyond the current code minimum – acceptable (52 F-IIC/F-STC) and preferred (57 F-IIC /F-STC), both which exceed the current code minimums. As the guideline referenced above points out, it is expected that tenants of entry level apartments, market rate apartments, luxury level apartments, and condominiums will all have different acoustic expectations for their units. For more information, request a copy of Maxxon's Superior Sound Control Systems brochure. Maxxon Corporation has performed hundreds of sound tests on Maxxon gypsum cement underlayments. Each was performed by recognized testing agencies over a wide variety of floor/ceiling assemblies. The acoustical performance of Gyp-Crete, Gyp-Crete 2000/3.2K, Therma-Floor, Dura-Cap and Commercial Topping are all similar.

LIMITATIONS

During construction, the general contractor must place temporary wood planking over underlayment wherever it will be subjected to heavy wheeled or concentrated loadings. Maxxon Underlayments are not to be used on or below grade, except over well-drained structural substrates. They should also not be used in areas that have prolonged contact with water. The typical maximum depth for gypsum underlayments is 3" (76 mm). For depths greater than 3" (76 mm), contact your Maxxon dealer.

SOLUTIONS FOR A WORLD OF FLOOR CHALLENGES

REINFORCEMENT

Project conditions such as potential movement of the subfloor — which could cause ceramic tile or other hard surface floor goods to crack — often require reinforcement of the underlayment.

Maxxon CSM and Maxxon Reinforcement provide reliable and cost-effective alternatives to traditional metal lath, which is difficult to install and has been rapidly increasing in cost. Using Maxxon CSM or Maxxon Reinforcement can also reduce the depth of the underlayment over a sound control mat.



MAXXON CSM

- Passes extra heavy ratings tests by the TCNA
- Water-resistant fabric
- 40% pre-consumer recycled content
- Always a “green” building material
- May help contribute points toward LEED® project certification



MAXXON REINFORCEMENT

- Excellent durability
- Light — easy to handle
- No memory (unlike metal lath)
- Dimensionally stable in hot weather; not brittle in cold
- Long rolls reduce installation cost (compared to metal lath)
- Can be used over wood, concrete and precast plank
- Can be used over Acousti-Mats and with Maxxon Underlayment to reduce pour depth

SOUND CONTROL

WITH SEVEN LEVELS OF SOUND CONTROL, MAXXON HAS THE RIGHT SOLUTION FOR YOUR PROJECT

We have all experienced the pitfalls of an inferior sound control system. Whether in a commercial, multifamily, or single family application, sound control is important to the end user. From floor height concerns to open beam and corrugated steel decking, Acousti-Mat offers multiple levels of sound control to meet the constraints of any project.

With Acousti-Mat, design possibilities include the full spectrum of floor good options such as marble, ceramic tile or hardwood, without sacrificing sound control. Not only do Acousti-Mat and Enkasonic help reduce noise pollution, they also promote indoor air quality. Backed by over 900 documented sound tests, the Acousti-Mat/Maxxon Underlayment system is also the only sound control mat/underlayment system that meets the stringent standards of GREENGUARD Select CertificationSM. To receive more information about Acousti-Mat & Enkasonic, consult the complete Product Literature chart on page 12.

ACOUSTI-MAT[®]
Superior Sound Control Systems



SELF-LEVELING

From thin toppings to deepfill, Maxxon's Level-Right line of cementitious underlayments has you covered. The Level-Right line installs fast and can be walked on in as little as two to four hours.

Level-Right and Level-Right Plus allow you to pour up to 3" deep and can achieve compressive strengths from 4,500 psi to 7,000 psi. With compressive strengths up to 7,200 psi, Level-Right FS-10 can be poured from 0 – 3/8" and provides a smooth, hard surface ready to receive virtually any floor good.

For the concrete floor look with the leveling power of Level-Right, you need Level-Right WearTop. Available in white or grey, Level-Right WearTop can be integrally colored or stained in a variety of colors. To receive more information about Level-Right Self-Leveling Underlayments, consult the complete Product Literature chart on page 12.



LEVEL-RIGHT
Self-Leveling Floor Underlayment

LEVEL-RIGHT PLUS
Multi-Purpose Self-Leveling Floor Underlayment

LEVEL-RIGHT FS-10
Fast Setting, 0-10 mm

LEVEL-RIGHT
WearTop

MOISTURE VAPOR TREATMENTS



Where moisture vapor emissions can wreak havoc on your finished floor goods, you need a proven solution. Maxxon DPM and Maxxon MVP prevent the passage of water vapor and moisture through concrete floors and walls on or below grade. These surface applied vapor barriers can be installed in new concrete construction or in renovation projects. They can reduce moisture vapor emission rates of up to 25 lbs x 1000 s.f. to 3 lbs or less. Maxxon DPM also prevents capillary infiltration of oil or other chemicals from the ground and can be used to treat oil contaminated slabs.

MAXXON DPM
Damp Proof Membrane

MAXXON MVP
Moisture Vapor Protection

FROM PAGE 9: INSTALLING MAXXON UNDERLAYMENTS

NOTES TO ARCHITECT

1. Specify Maxxon Underlayments in Section 03540 – Cementitious Underlayment, or Section 03 54 00 – Cast Underlayment. Contact Maxxon Corporation for customized CSI formatted specifications.
2. Maxxon Underlayments cannot resist stresses caused by sudden structural movement.
3. The structural subfloor and floor joist must comply with manufacturers' maximum span criteria. Typically a deflection limitation of L/360 is adequate for Maxxon Underlayments. Some floor coverings such as marble, stone, travertine, and ceramic tile may require a stiffer floor system. Maxxon Underlayments are non-structural and therefore cannot be expected to reinforce structurally deficient subfloors. The general contractor, architect, specifier, or building owner should make necessary allowances for expected live, concentrated, impact, and/or dead loads including the weight of finished floor goods and setting beds.
4. Expansion joints in all types of work shall be brought through the underlayment.
5. Maxxon Underlayments require a floor covering. Contact your Maxxon dealer for recommendations for adhering floor goods. Call or write for a copy of the brochure *Procedures for Attaching Finished Floor Goods to Maxxon Underlayments*. It is the responsibility of the floor goods installer to determine the compatibility of their product with a particular floor underlayment.
6. When applying engineered wood floors follow the wood floor or adhesive manufacturer's recommendations. When applying hardwood flooring follow NWFA/NOFMA installation recommendations.
7. Level-Right Self-Leveling Underlayments are the only recommended underlayments for gymnasium floors that are directly adhered. Wood gym floors using a sleeper system of attachment are acceptable for Dura-Cap, Commercial Topping and Level-Right.
8. Maxxon Underlayments are not a vapor barrier. The general contractor, architect, specifier, or building owner shall test below grade, on grade, or elevated slabs for MVER (ASTM F1869-09) or RH (ASTM F2170). If the MVER or RH of the concrete substrate exceeds the floor covering manufacturer's respective requirements for the finished flooring system, the concrete should be treated with a moisture vapor barrier, such as Maxxon DPM or Maxxon MVP, before installing a Maxxon Underlayment.

PRODUCT SUPPORT

Additional product literature and customized CSI formatted specifications are available upon request, or visit our website at www.maxxon.com.

WARRANTIES

Maxxon Underlayments are warranted to be free from manufacturing defects as defined in this warranty. Manufacturing defects are considered to be those defects that occur due to the quality of the underlayment ingredients or from the manufacturing process itself. This warranty does not include labor costs and other costs or expenses associated with the removal or installation of any underlayment. Because Maxxon Corporation does not install the underlayment, it cannot be held responsible for the results of the application. Maxxon Corporation specifically disclaims problems that occur due to weather conditions, structural movement, structural design flaws and application techniques. This warranty is in lieu of all other warranties expressed or implied including the warranty of merchantability and fitness of purpose and of all other obligations or liabilities on Maxxon Corporation's part. Maxxon Corporation neither assumes, nor authorizes any person to assume for Maxxon Corporation, any liability with the sale and installation of any of its floor underlayments.

CODE LISTINGS

Maxxon Floor Underlayment systems are recognized by ICC-ES Evaluation Reports ICC ESR-2540, ICC ESR-1141, ICC ESR-1153, and ICC ESR-1774; U.S. Dept. of Housing and Urban Development 951i; City of Los Angeles; City of San Francisco; State of Rhode Island; Miami-Dade County Product Control Approved, and are GREENGUARD Indoor Air Quality Certified, GREENGUARD Children & Schools Certified and GREENGUARD Select Certified.

A COMMITMENT TO "GREEN" BUILDING PRODUCTS

Maxxon is proud to lead the market in offering a comprehensive line of eco-friendly underlayment and sound control solutions. Manufactured with recycled content, Maxxon products are GREENGUARD Indoor Air Quality Certified® and Children and Schools Certified™ and may help contribute valuable points toward LEED® project certification. Maxxon products also meet the standards of the new GREENGUARD Select Certification Program™. This elite pilot program uses the stringent emission criteria of the GREENGUARD Children & Schools Certification Program with additions to meet the latest scientific and market requirements. Products are tested and certified for four different environments: commercial, education, healthcare, and home. Maxxon products that achieve GREENGUARD Children &

Schools Certification are also Select Certified in all four environments.

This third-party testing and certification verifies that Maxxon's products do not emit excessive levels of chemicals, including VOCs, formaldehyde, total aldehydes, and phthalates, assuring your clients that they do not need to worry about health risks of the floor on which they are standing. For more information Maxxon's GREENGUARD Select Certified products please refer to the chart below. Digital brochures can be found at www.maxxon.com or contact your Maxxon Regional Representative at (800) 356-7887 for a copy.



SAMPLE USGBC LEED® CREDIT AREAS IMPACTED BY MAXXON GYPSUM UNDERLAYMENTS

PROJECT	CREDIT	CATEGORY	HOW REQUIREMENT IS FULFILLED
Indoor Environmental Quality	IEQ 3.2	Air Quality Before Occupancy	GREENGUARD Certified (Testing MUST be performed before claiming credit)
	IEQ 4.3	Low Emitting Materials: Floor System	GREENGUARD Children & Schools™ Certified
Materials & Resources	MR 2	Construction Waste Management	Recyclable packaging and shipping materials
	MR 4	Recycled Content	Fly Ash
	MR 5	Local/Regional Materials	Manufactured in Blue Rapids, KS 66411; Las Vegas, NV 89036; Camden, NJ 08103; Job Site Manufactured with Local Sand & Water
Innovation & Design	ID 1	Sound Control	Enhanced living environment

*Credits may vary depending on project type and Maxxon products used. Contact Maxxon Corporation for complete information.

POTENTIAL LEED® ELIGIBILITY*

CREDIT AREA	POINTS
New Construction/Renovation	Up to 10
Retail	Up to 7
Schools	Up to 8
Core & Shell	Up to 8
Commercial Interiors	Up to 9

PRODUCT LITERATURE

Request the following literature to learn more about specific Maxxon Products.

	GYP-CRETE	GYP-CRETE 2000/3.2K	THERMA-FLOOR	DURA-CAP	COMMERCIAL TOPPING	LEVEL-RIGHT	ACOUSTI-MAT I	ACOUSTI-MAT II	ENKASONIC	ACOUSTI-MAT 3	ACOUSTI-MAT SD	ACOUSTI-MAT LP	ACOUSTI-MAT LPR	MAXXON CSM	MAXXON MR
SALES/TECH SHEET	x	x	x	x	x	x	x		x		x	x	x		
MAXXON SYSTEMS BROCHURE	x	x	x	x	x									x	x
SOUND CONTROL SYSTEMS BROCHURE							x	x	x	x				x	x
THICK & THIN SELF-LEVELERS BROCHURE						x									
MAXXON ARCHITECT MANUAL	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
WEBSITE MAXXON.COM	x	x	x	x	x	x	x	x	x	x	x	x	x	x	

Another superior product from:
Maxxon® Corporation • 920 Hamel Road • P.O. Box 253
Hamel, MN 55340 USA • 763-478-9600 • Fax: 763-478-2431

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THE MAXXON GREEN MARK
Maxxon products with this symbol
may help contribute toward points
for LEED project certification.