# **Multi-Family Underlayment**



Keene Building Products' multi-family GSL product line provides a one source system for gypsum underlayment & sound control.

Our variety of gypsum underlayments (GSL) & QUIET QURL® come together providing a floor system ready for finished floor coverings, while meeting & exceeding sound codes & UL fire ratings.

### **GSL® Products:**

GSL® K2.6

GSL® M3.4

GSL® ALL PURPOSE SEALER

GSL® PRIMER

Quiet Qurl®



keenebuilding.com

### **Gypsum** in Multi-Family Construction

Multi-family housing requires specific characteristics in order to provide a healthy environment for its tenants. Issues that can be resolved amicably in a single-family home can become litigated issues in an apartment building. Noise, in particular, becomes a contentious issue in multi-family housing.

GSL® gypsum underlayments provide a variety of advantages. In addition to speed, GSL gypsum underlayments also provide fire protection; gypsum does not burn. GSL gypsum underlayment also offers numerous acoustical advantages.

GSL also works well as a topping slab. It's common for concrete slabs to get beat up and become damaged or uneven. GSL gypsum underlayments offer a fast economical solution to flatten concrete slabs.





### GSL® K2.6

Keene Building Products' standard gypsum underlayment provides contractors with an economical solution to meeting UL fire ratings and noise ratings.

Pumpable, GSL K2.6 delivers high strength, good water resistance and outstanding performance when placed after drywall in typical multi-family projects. GSL K2.6 can be poured anywhere from 0.375" to 3" thick.

### **APPLICATIONS**

Multi-family, light commercial, commercial/retail/office, hotel/motel, assisted living/senior care and for sound and fire control applications.





### **UL LISTINGS**

L501, L502, L503, L504, L505, L506, L507, L508, L509, L510, L511, L512, L513, L514, L515, L516, L517, L518, L519, L520, L522, L523, L524, L525, L526, L527, L528, L529, L530, L534, L535, L536, L537, L538, L539, L540, L541, L542, L543, L546, L547, L549, L550, L551, L552, L556, L558, L560, L563, L570, L574, L576, L577, L581, L583, L585, L587, L588, L590, L592, M500, M503, M504, M508, M511, M512, M517, M530, M535, G577, G578, G579, G580, G581, G582

If your listing is not shown here, please contact Keene Building Products.



# FEATURES AND BENEFITS

- Provides additional protection for fire resistance as shown in UL approved assemblies
- Provides additional sound control enhancements as tested under ASTM E90, Airborne Noise or STC and ASTC
- Pourable over virtually any surface (especially plywood and OSB subfloors)
- Durable high strength gypsum
- Open time up to 30 minutes

### **PACKAGING**

80 lb. Bag

page 4 GSL® K2.6

### GSL® M3.4

When higher compressive strengths are required, Keene Building Products' GSL M3.4 offers a high strength underlayment for renovations and high traffic pojects.

GSL M3.4 sets within 90-minutes and can handle foot traffic in two hours, making construction quick and easy. Near featheredge pours can be achieved, along with 3" thick applications as well. This product offers high density, yet less finished weight and more flexibility than Portland cement self-levelers.

### **APPLICATIONS**

Multi-family, renovations, floor leveling, light commercial, commercial/retail/office, hotel/motel, assisted living/senior care, sound and fire control.





### **UL LISTINGS**

G577, G578, G579, G580, G581, G582, G592, H502, J917, J919, J920, J924, J927, J931, J957, J958, J991, J944, L006, L201, L202, L206, L208, L209, L210, L211, L212, L501, L502, L503, L504, L505, L506, L507, L508, L509, L510, L511, L512, L513, L514, L515, L516, L517, L518, L519, L520, L522, L523, L524, L525, L526, L527, L528, L529, L530, L532, L533, L534, L535, L536, L537, L538, L539, L540, L541, L542, L543, L546, L547, L549, L550, L551, L556, L557, L558, L560, L562, L563, L564, L565, L570, L573, L574, L576, L577, L579, L581, L583, L585, L587, L588, L589, L590, L592, L593, M500, M502, M503, M504, M506, M508, M511, M512, M513, M514, M515, M517, M518, M519, M528, M530, M535, M536, M538, M550.

If your listing is not shown here, please contact Keene Building Products.



# FEATURES AND BENEFITS

- A premium, higher strength avpsum
- Provides additional protection for fire resistance as shown in UL approved assemblies
- Excellent for floor leveling in deep fill applications
- Provides additional sound control enhancements
- Pourable over virtually any surface (especially plywood and OSB subfloors)
- Open time up to 30 minutes
- Does not require mechanical floor preparation (shot blasting)

### **PACKAGING**

• 80 lb. Bag

page 6 GSL® M3.4

### GSL® ALL PURPOSE SEALER

GSL ALL PURPOSE SEALER (APS) is recommended for use on all the GSL® (family of products) installed systems to enhance the bond between the underlayment and finished floor covering.

GSL ALL PURPOSE SEALER applied to surface of gypsum underlayment will eliminate any dusting creating a durable surface resistant to incidental moisture, resulting in an ideal surface for most floor coverings. One coat is all that is required, just mix at a 1 to 3 ratio with water and apply using approved methods.

### **APPROVED SUBSTRATES**

- GSL® K2.6
- GSL® M3.4
- Most gypsum based underlayments (Consult Keene Building Products' Technical Department)

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# FEATURES AND BENEFITS

- Meets ASTM F2419
- Zero VOC
- · Resists water & bleed through
- Mildewcide protection
- Simple 1 to 3 mix ratio
- Outstanding flexural strength

### **PACKAGING**

- 5 gallon bucket
- 55 gallon drum

### **GSL® PRIMER**

This easy to install solvent-free, stabilized vinyl acetateethylene based primer is designed to enhance the bond between the GSL family of products and various substrates.

GSL primed substrates enable maximum bond strength for self-leveling applications.

It is re-emulsifiable and easy to install, using a roller, soft bristle broom, brush or spray.

**APPROVED SUBSTRATES** are the same as GSL ALL PURPOSE SEALER (APS).



# FEATURES AND BENEFITS

- ZERO VOC
- Enhances bond to substrate
- Re-emulsifiable
- Simple Application

### **PACKAGING**

- 5 gallon bucket
- 55 gallon drum

page 8 GSL® PRIMER



Vibrations travel through connections. By limiting direct connections (such as between the finished floor and the floor ceiling assembly) we can effectively disrupt the path for noise to pass through our floors and walls.

Keene Building Product's Quiet Qurl® product line of sound control mats offers the solution. All products are designed for use with GSL gypsum underlayment or lightweight concrete.

### **APPLICATIONS**

Multi-family construction: apartments and condominiums, Commercial construction: hotel/motel, mixed use, assisted living/senior care.





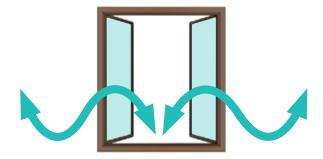
	Product Name	Minimum GSL® Thickness	Roll Length	Area
	Mat Thickness 0.125 Inches Quiet Qurl 52/013 MC Quiet Qurl 52/013 MC MT Quiet Qurl 52/013 RF Quiet Qurl 52/013 RF MT	6 / 3.0 mm 0.75 inch 0.875 inch 0.75 inch 0.75 inch	100 ft. 100 ft. 100 ft. 100 ft.	400 sq. ft. 400 sq. ft. 400 sq. ft. 400 sq. ft.
	Mat Thickness 0.25 Inches A Quiet Qurl 55/025 FT Quiet Qurl 55/025 MC Quiet Qurl 55/025 MC MT Quiet Qurl 55/025 RF Quiet Qurl 55/025 RF	/ 6.0 mm 1.0 inch 1.0 inch 1.0 inch 0.75 inch 1.0 inch	100 ft. 100 ft. 50 ft. 100 ft. 50 ft.	400 sq. ft. 400 sq. ft. 200 sq. ft. 400 sq. ft. 200 sq. ft.
	Mat Thickness 0.40 Inches A Quiet Qurl 60/040 MC Quiet Qurl 60/040 MC MT Quiet Qurl 60/040 RF Quiet Qurl 60/040 RF MT	/ 10.0 mm 1.0 inch 1.25 inch 1.0 inch 1.0 inch	100 ft. 50 ft. 100 ft 50 ft.	400 sq. ft. 200 sq. ft. 400 sq. ft. 400 sq. ft.
	Mat Thickness 0.75 Inches A Quiet Qurl 65/075 MC Quiet Qurl 65/075 N MT Quiet Qurl 65/075 N RF Quiet Qurl 65/075 RF MT	/ 19.0 mm 1.5 inch 1.5 inch 1.5 inch 1.5 inch	50 ft. 50 ft. 50 ft. 50 ft.	200 sq. ft. 200 sq. ft. 200 sq. ft. 200 sq. ft.
(	Additional Products	<b>Product Thickness</b>	Length	Area
	Quiet Qurl Reinforcement RWT Quiet Qurl Perimeter Isolation QQ Step Soft 2 mm QQ Step Soft 5 mm QQ Step Soft 6 mm QQ Step Soft 8 mm QQ Step Soft 10 mm RC Assurance Space Assurance	0.375 in./9.0 mm 0.125 in./3.0 mm 2.0 mm 5.0 mm 6.0 mm 8.0 mm 10.0 mm 0.3125 in./8.0 mm 0.25 in./6.0 mm	75 ft. 550 ft. 50 ft. 25 ft. 25 ft. 20 ft. 20 ft. (500 clips po	300 sq. ft. 183.3 sq. ft. 200 sq. ft. 100 sq. ft. 100 sq. ft. 80 sq. ft. 80 sq. ft. er box) 25 sq. ft.

## Quiet Qurl® & GSL® Assembly Results

						IIC / AIIC					
	Quiet Qurl	001.0	Truss GWB/ Insulation Depth RC-1 Channel					mic Tile	TAILE STC/ASTC		
		GSL® Underlayment	Insulation	Truss Depth	GWB/ RC-1 Channel	200		ي د	E. 13		STC / ASTC
OPEN	52/013	0.75"	3 1/2" batt	16"	1 layer/16" o.c.			56	56	53	53
WEB JOIST	55/025	1"	3 1/2" batt	18"	1 layer/24" o.c.	51		53	54	53	54
	60/040	1"	Full Cavity	16"	1 layer/24" o.c.		84	57	59		61
1 A	65/075	1 1/2"	6" batt	18"	1 layer/16" o.c.	59		60	61	60	55
	52/013 MT	0.875"	3 1/2" batt	18"	1 layer/16" o.c.	52		54	56	53	
2 2	55/025 MT	1"	6" batt	18"	2 layers/16" o.c.	58			62	61	61
		1, L529, L534, L542, L54 1, M503, M508, M510	6, L550, L558, L5	562, L563, L5	574, L576, L577, L579	), <b>L58</b> 1	I, L58	3, L5	86, L	587, I	L592
Nominal	52/013	0.75"	3 1/2" batt	10"	16" o.c.			50	55	51	57
WOOD JOIST	55/025	1"	3 1/2" batt	10"	1 layer/16" o.c.			52	55	53	54
WOOD JOIST	60/040	1 1/4"	3 1/2" batt	10"	16" o.c.	50		53	54	50	54
	65/075	1 1/2"	3 1/2" batt	10"	16" o.c.	52				52	55
	55/025 MT	1"	3 1/2" batt	10"	16" o.c.	55	74	57	57	57	52
	60/040 MT	1 1/4"	3 1/2" batt	10"	16" o.c.	53	68	55		54	53
11 11	III - 1 00C 1 004	, L202, L206, L208, L20	0 1040 1044 10	10 1501 17	FOO 1 FOO 1 FOA 1 FOF	1 500	1.50	7 1 5	00 1 5	00.1	540
	M504, M51										
IJOIST	52/013	0.75"	3 1/2" batt	11 7/8"	2 layers/16" o.c.			56	58	52	58
	55/025	1"	3 1/2" batt	11 7/8"	1 layer/16" o.c.			54	57	53	53
40	60/040 55/025 MT	1 1/2" 1 1/4"	5 1/2" batt	14"	2 layers/24" o.c.	53 54		54	56	54	53
	55/025 MT 60/040 MT	1 1/4"	3 1/2" batt 3 1/2" batt	11 7/8" 11 7/8"	2 layers/12" o.c. 2 layers/16" o.c.	60	78	56 59	59 61	56 61	57
	UL: L518, L538	i, L547, L570, L583, L58 6, M511, M512, M515		11 7/6	2 layers/10 o.c.	60	70	59	01	01	57
STEEL JOIST	55/025 MT	1"	3 1/2" batt	9 1/4"	1 layer/12" o.c.	54		57	56	55	54
		1, G565, G577, G578, G 7, L543, L549, L551, L55			.573						
CONCRETE	55/025	1"	NONE	6"	NONE					54	
		1"	YES	6"	1 layer				68	63	
	60/040	1"	NONE	6"	NONE				55	53	
1		1"	YES	6"	1 layer				68	64	
	UL: J917, J919	, J920, J924, J927, J93	1, J957, J991, J99	94							
WOOD TIMBER	55/025	1"	NONE	App 14"	NONE					52	51
RETROFIT	65/075 N	2"		App 12"	NONE	52		52	55	55	58
RETRUFIT	55/025 MT	2"	NONE	App 12"	NONE	47		47	50	50	58
	65/075 N MT	2"		App 12"	NONE	56		58	59	59	60



### GSL® Recommended Drying Conditions



In order for GSL underlayment's to be installed properly, the building interior must be ventilated and heated at a minimum of 50°F (10°C). This must be in place before, during, and after installation of GSL® products until dry.

Typical drying time for 1" thick gypsum concrete is between 7-10 days, but if these drying conditions are not present, the drying time may be longer.

Drying time can vary based on many different variables such as weather, humidity, thickness of the underlayment, ventilation, and the amount of water in the underlayment at the time of installation.

Before and after installation of GSL products, it is extremely important to maintain a low relative humidity. Some construction materials contain organic materials and if not installed properly, could very well result in mold growth or fungus.

The general contractor is in charge of controlling moisture levels in the building. It is important to keep windows open during the drying process. If the weather is not permitting, then the general contractor is responsible for heating. Floor coverings cannot be installed until floor underlayment's are completely dry.

Keene Building Products recommends the flooring contractor for your individual project test the floor for dryness prior to any installation of finished floor products.

The flooring contractor shall use a moisture meter to check the moisture levels. Keene Building Products recommends the Delmhorst® BD-2100\* Moisture Meter set on the gypsum scale. The calcium chloride method is not recommended.

Keene Building Products and the GSL applicators are not responsible for controlling the moisture levels, ventilating or testing the floor. Please contact your general and flooring contractors for actual drying condition procedures. All floor covering manufacturer installation procedures supersede our recommendations.

\*Delmhorst® BD-2100 is a product from Delmhorst Instrument Co., www.delmhorst.com.

# Project Profile Private Apartment in Denver, CO

This private apartment located in Denver, CO was in need of a new floor. Trained flooring contractors installed the durable, high strength GSL® K2.6 gypsum underlayment onto the subfloor. In a single pour, applications from 0.375" up to 3" depth can be achieved.

The medium flow GSL remains placable for nearly 30 minutes, yet will withstand foot traffic at any depth in about 90 minutes.



# GSL® K2.6

This product offers high density, yet has less finished weight and more flexibility than Portland cement self-levelers. Unlike Portland cement, gypsum does not shrink and requires no hand finishing tools other than a darby that establishes thickness and uniformity at time of placement.

Typically installed with a specialty mixing machine capable of placing 20,000 to 30,000 square feet per day, **GSL K2.6** is specially formulated to add mass to a floor ceiling assembly and help control airborne noise.



### **Dependable Products**



### **Self-Levelers**

Dependable's self-levelers are both pumpable and pourable and can be used on a variety of surfaces including wood, ceramic tile, and concrete. There is a solution even for the most difficult substrates.

SKIMFLOW® NP	A hybrid cement self-leveling underlayment designed for time sensitive projects, where compromised substrates make shrinkage undesirable.		
SKIMFLOW® LCB	A fiber reinforced gypsum based self-leveling underlayment designed for use directly over wood.		
SKIMFLOW® LCB RAPID	A rapid setting, fiber reinforced self-leveling underlayment designed for dry, interior, fast track installations.		
SKIMFLOW® LP	An innovative self leveling underlayment designed to facilitate ramping (1/4" in 12") or very flat floors.		
PREPPRO FT	A premium self-drying, calcium aluminate cement based self- leveling underlayment with superior placement characteristics and low surface prep capability.		



### **Feather and Patch**

The adhesive friendly, mildewcide protected products are easy to use with a quick dry time. From a feather finish to over an inch in thickness, the Dependable feather and patch products can prep the floor.

PREPPRO FEATHER	A latex modified, fine textured, trowel applied, rapid drying cementitious cementitous feather patch for interior use.		
SKIMCRETE® XL	Fast drying, fast cover, latex modified blended cement patch		
WHITE SKIMCOAT™	The original quick setting, high strength gypsum patch		
PREPPRO® RC	A high-performance screed mortar engineered for fast track interior and exterior applications that require rapid drying, exceptional bond and durability.		
POLYSKIM®	A premium gypsum based skimcoat designed for use over gypsum concrete, wood and other surfaces		



### **Moisture**

Dependable's high quality, cost effective moistre mitigation products can prep any concrete with moisture issues helping fast track a job while saving money.

VAPORSEAL™ HM+

A two part solid epoxy moisture mitigation system for RH between 75%-100%





### **Multi-Family Underlayment**

Keene Building Products provides a one source gypsum underlayment and sound control system providing durability, luxury and comfort in new multi-family construction.

GSL <sup>®</sup> K2.6	A pumpable gypsum underlayment for wood frame, concrete and pre-cast concrete construction			
GSL® M3.4	A premium high strength gypsum underlayment for wood frame, concrete and pre-cast concrete construction			
GSL® ALL PURPOSE SEALER	A sealer designed to use with GSL family of products			
GSL® PRIMER	A primer designed for use with GSL family of products			
QUIET QURL®	A variety of entangled net sound mat products designed for use with the GSL family of products			



### **Primers, Additives and Sealers**

For high standards and when added adhesion is needed Dependable's primers and additives improve adhesion, flexibility and add extra mildewcide protection.

PLATFORM P360	A universal, alkali resistant primer for underlayments
PRIMER MF	A multi-purpose primer for the multi-family environment
TOPCOAT/SEALER	A water-based emulsion that penetrates into gypsum substrates, binds dust and prepares the surface to receive finished floor coverings.
MULTI-FAMILY ODOR SEAL	a water-based emulsion that penetrates into absorbent substrates and forms a strong odor and water-resistant film.
WHITE LATEX LIQUID®	For use as a primer or additive (see data sheet for more information)



### **Rolled Underlayments**

Whether tile cracking, noise or moisture is an issue we have a solution to keep floors durable and comfortable. These high performance underlayments work well with both residential and commercial settings.

KEEDEROLL™ 100	An uncoupling mat that provides a long-lasting and inexpensive solution for tile installation.
KEEDEROLL™ 300	A waterproof entangled net uncoupling mat designed to keep tiles isolated and prevent cracking
KEEDEROLL™ MT	A fast, durable solution to protect tile and reduce unwanted noise in one roll
QQ STEP SOFT™	A sound deadening rubber mat promoting anti fracture of tile and increasing sound ratings
KEEDELATH™	A self-furring synthetic lath that is easier to install and a lighter alternative to self-furred metal lath.
KEEDEBAND™	A 5" wide waterproofing band for KEEDEROLL™ 300 waterproofing installations





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