SUBMITTAL SHEET

EcoBatt® Insulation

with ECOSE® Technology

CONTRACTOR: Tricity Insulation
JOB: Williams Farms
DATE: 3/21/2022

DESCRIPTION

EcoBatt insulation is a cost-effective thermal and acoustical barrier for energy-efficient construction. Their consistent quality, low dust and easy-cutting resilient fibers make fabrication simple and installation fast. EcoBatt insulation products can be used in new and retrofit wood and metal frame applications in residential and commercial structures. High Density (HD) EcoBatt batts are available where optimal thermal performance is required and space is limited. Staple-Free batt insulation is flangeless kraft-faced batts that friction fit between 16" on center wood studs, eliminating the need to staple.

SURFACE BURNING CHARACTERISTICS

Knauf unfaced and FSK-25 batts do not exceed 25 Flame Spread and 50 Smoke Developed when tested in accordance with ASTM E84.

FIRE SAFETY

Knauf Insulation unfaced Batts are non-combustible according to ASTM E136. Facings and coated products do affect fire safety and burning characteristics. Please consult your Knauf Insulation sales representative or technical support for additional information and appropriate applications.

TECHNICAL DATA

Property (Unit)	Test	Performance
Corrosion	ASTM C1617	Pass
Thermal Value	ASTM C518	See chart on next page
Water Vapor Permeance	ASTM E96	Kraft Faced: 1.0 perms or less; FSK-25 and Foil Faced: 0.05 perms
Water Vapor Sorption (by weight)	ASTM C1104	Less than 5%
Combustibility	ASTM E136	Non-combustible (unfaced only)
Mold Growth	ASTM C1338	Pass
Surface Burning Characteristics (flame spread/smoke developed)	ASTM E84	Unfaced and flamed-rated FSK facings: 25/50 Kraft facing will burn and should not be left exposed.

FORMS AVAILABLE

Product Description	R-Value (RSI)	Thickness	Location
Unfaced Thermal and Acoustical			
Fiberglass insulation designed for use in wood or metal framed construction for both new or existing structures. Specifier permitted choice of warm side vapor retarders, including foil backed gypsum board or polyethylene film. Unfaced fiberglass insulation is also an excellent sound control insulation, designed for installation in partition walls and as a lay-in over acoustical ceiling panels. When tested in accordance with ASTM E84, material has Fire Hazard Classification of 25/50 or less. **Specification Compliance** ▪ ASTM C665; Type I, Class A ▪ HH-I-521F; Type I, Class A ▪ ASTM E136 ▪ UL Classified FHC 25/50 (BKNV.R8582)	R-8 (1.4)	2½" (64 mm)	
	R-11 (1.9)	3½" (89 mm)	
	R-13 (2.3)	3½" (89 mm)	
	R-15 HD (2.6)	3½" (89 mm)	
	R-19 (3.3)	6¼" (159 mm)	EX WALLS
	R-20 (3.5)	5½" (140 mm)	
	R-21 HD (3.7)	5½" (140 mm)	
	R-22 (3.8)	6½" (165 mm)	
	R-23 HD (4.0)	5½" (140 mm)	
	R-25 (4.4)	8" (203 mm)	
	R-30 (5.3)	9½" (241 mm)	
	R-30 (5.3)	10" (254 mm)	
	R-30 HD (5.3)	8¼" (210 mm)	
	R-38 (6.7)	12" (311 mm)	CEILING AREA
	R-38 HD (6.7)	10¼ (260 mm)	
	R-49 (8.6)	13¾ (349 mm)	
Kraft Faced Thermal and Acoustical			
Fiberglass insulation with kraft paper with or without flanges. Kraft vapor retarder has vapor transmission (permeance) rating of 1.0 or less. Kraft faced fiberglass insulation is also an excellent sound control insulation, designed for installation in partition walls or other applications where the facing will be covered. Kraft facing will burn and should not be left exposed. Install kraft facing in contact with approved finish material. **Specification Compliance** ▪ ASTM C665; Type II, Class C ▪ HH-I-521F; Type II, Class C	R-11 (1.9)	3½" (89 mm)	
	R-13 (2.3)	3½" (89 mm)	
	R-15 HD (2.6)	3½" (89 mm)	
	R-19 (3.3)	6¼" (159 mm)	
	R-20 (3.5)	5½" (140 mm)	
	R-21 HD (3.7)	5½" (140 mm)	
	R-22 (3.8)	6½" (165 mm)	
	R-23 HD (4.0)	5½" (140 mm)	
	R-25 (4.4)	8" (203 mm)	
	R-30 (5.3)	9½" (241 mm)	
	R-30 (5.3)	10" (254 mm)	
	R-30 HD (5.3)	8¼" (210 mm)	
	R-38 (6.7)	12" (311 mm)	
	R-38 HD (6.7)	10¼ (260 mm)	
	R-49 (8.6)	13¾ (349 mm)	
FSK-25 Faced			
Fiberglass insulation with a flanged reinforced foil/scrim/kraft facing with an average vapor transmission (permeance) rating of 0.05. When tested in accordance with ASTM E84, material has Fire Hazard Classification of 25/50 or less. **Specification Compliance** ▪ ASTM C665; Type III, Class A ▪ HH-I-521F Type III, Class A	R-11 (1.9)	3½" (89 mm)	
	R-13 (2.3)	3½" (89 mm)	
	R-19 (3.3)	6¼" (159 mm)	
	R-21 HD (3.7)	5½" (140 mm)	
	R-30 (5.3)	10" (254 mm)	
	R-38 (6.7)	12" (311 mm)	
Foil Faced			
Fiberglass foil insulation with asphalt-coated kraft/foil facing with flanges. Foil vapor retarder has vapor transmission (permeance) rating of 0.05 or less. Insulation should not be left exposed. Install foil facing in contact with approved finish material. **Specification Compliance** ▪ ASTM C665; Type III, Class B ▪ HH-I-521F; Type III, Class B	R-11 (1.9)	3½" (89 mm)	
	R-13 (2.3)	3½" (89 mm)	
	R-19 (3.3)	6¼" (159 mm)	
	R-21 HD (3.7)	5½" (140 mm)	
	R-30 (5.3)	10" (254 mm)	
	R-38 (6.7)	12" (311 mm)	

ACOUSTICAL PERFORMANCE

EcoBatt insulation provides excellent acoustical properties and will reduce sound transmission when properly installed in partition walls and acoustical ceiling and floor systems. Knauf acoustical/thermal insulation can improve STC ratings in wood stud construction by 3 to 5 points and metal stud construction by 8 to 10 points depending upon the complexity of the wall configurations, R-values and layers of insulation.

FIBERGLASS AND MOLD

Fiberglass insulation will not sustain mold growth. However, mold can grow on almost any material when it becomes wet and contaminated. Carefully inspect any insulation that has been exposed to water. If it shows any sign of mold, it must be discarded. If the material is wet, but shows no evidence of mold, it should be dried rapidly and thoroughly. If it shows signs of facing degradation from wetting, it should be replaced.

STC RATINGS

	With insulation	No insulation	With insulation	No insulation
Wood Frame, 2 x 4 (3½" – 4" Batt), 16" O.C.	(with ½" gypsum wallboard both sides)		(with ⅝" Type X gypsum wallboard both sides)	
Single studs/Single layer gypsum	38	35	38	34
Single studs/Resilient channel	47	39	50	40
Staggered studs/Single layer gypsum	49	39	51*	43
Double stud walls/Single layer gypsum	57	46	56	45
Steel Frame (2½" studs) (2½" – 2⅝" Batt), 25 gauge, 24" O.C.	(with ½" gypsum wallboard both sides)		(with ⅝" Type X gypsum wallboard both sides)	
Single layer gypsum	45	36	47	39
Double layer gypsum one side/Single layer gypsum other side	50	39	52	44
Double layer both sides	54	45	57	48
Steel Frame (3⅝" studs) (3½" – 4" Batt), 25 gauge, 24" O.C.	(with ½" gypsum wallboard both sides)		(with ⅝" Type X gypsum wallboard both sides)	
Single layer gypsum	47	39	50	39
Double layer gypsum one side/Single layer gypsum other side	52	42	55	47
Double layer both sides	56	50	58	52

*STC reflects two 2 ½" thick fiberglass batts used

Additional Assemblies	STC
Wood frame, 2 x 4 (3½" – 4" Batt), 24" O.C., ½" thick gypsum board, single layer one side, double layer other side, resilient channel	55
Wood frame, 2 x 4 (3½" – 4" Batt), 24" O.C., ½" thick gypsum board, double layer both sides, resilient channel	57
Wood frame, 2 x 4 staggered studs (3½" – 4" Batt), 24" O.C., ½" thick gypsum board, single layer both sides	52
Wood frame, 2 x 4 (3½" – 4" Batt), 24" O.C., ⅝" thick Type X gypsum board, single layer both sides	40
Wood frame, 2 x 4 (3½" – 4" Batt), 24" O.C., ⅝" thick Type X gypsum board, single layer both sides, resilient channel	52

CERTIFICATIONS

Check with your Knauf Insulation Territory Manager to ensure information is current.

The chemical and physical properties of this product represent average values determined in accordance with accepted test methods. The data is subject to normal manufacturing variations. The data is supplied as a technical service and is subject to change without notice. References to numerical flame spread ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

This product is covered by one or more U.S. and/or other patents.
See patent www.knaufnorthamerica.com/patents

Visit knaufnorthamerica.com to learn more.

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04-22