



Knauf Data Sheet

MB-CDS-2e 07-09

Canadian Unfaced Metal Building Insulation

with ECOSE® Technology



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Description

Knauf Unfaced Metal Building Insulation with ECOSE Technology is a resilient, flexible unfaced blanket insulation made from inorganic fibers bonded by ECOSE Technology. The blanket is suitable for application of facings and has sufficient tensile and bond strength for normal handling by the fabricator and contractor. The blanket may also be used unfaced as additional insulation to fill voids in wall and roofs of metal buildings.

ECOSE Technology

ECOSE Technology is a revolutionary new binder chemistry that makes Knauf Insulation products even more sustainable than ever. It is based on rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals traditionally used in fiberglass insulation products. ECOSE Technology reduces binder embodied energy and does not contain phenol, formaldehyde, acrylics or artificial colors.

Application

When Knauf Unfaced Metal Building Insulation is faced with a suitable vapor retarder, it can be installed in exterior wall and roof surfaces of pre-engineered buildings. The product may

be used unfaced to fill voids in walls and roof cavities of pre-engineered buildings.

Features and Benefits

Energy Conservation

- Knauf Unfaced Metal Building Insulation has excellent thermal properties and reduces the building's operating costs for heating and air conditioning.

Identification

- Knauf Unfaced Metal Building Insulation is identified by manufacturer and R-value printed on the product.

Permanence

- Knauf Unfaced Metal Building Insulation will not rot, mold or deteriorate and will not provide sustenance for vermin, rodents or insects.

Specification Compliance

Knauf Unfaced Metal Building Insulation complies to the property requirements of the following specifications:

- HH-I-558C Form B, Class 6
- ASTM C 553 Type I, II
- ASTM C 991 Type I
- ASTM E 136
- GREENGUARD Children & SchoolsSM
- CGSB 51-GP-11M Type I
- CAN/ULC S702-97 Type I

Technical Data

Surface Burning Characteristics

- Does not exceed 25 Flame Spread, 50 Smoke Developed when tested in accordance with ASTM E 84, NFPA-255 and UL 723.

Odor (ASTM C 1304)

- No objectionable odor emission.

Corrosiveness (ASTM C 665)

- Does not accelerate corrosion on steel, copper or aluminum.

Corrosion (ASTM C 1617)

- The corrosion rate in mils/yr will not exceed that of the 1 ppm chloride solution.

Resistance to Microbial Growth (ASTM C 1338)

- Does not promote microbial growth.

Water Vapor Sorption (ASTM C 1104)

- Less than 0.2% by volume or 5% by weight.

Noncombustibility (ASTM E 136)

- Noncombustible.

Fiber Glass and Mold

Fiber glass 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. Air handling insulation used in the air stream must be discarded if exposed to water.



Sounds Absorption Coefficients (ASTM C 423, Type A Mounting)

		$\frac{1}{3}$ Octave Band Center Frequency (cycles/sec.)						
		125	250	500	1000	2000	4000	NRC
76 mm	(3")	.36	.76	1.04	.94	.98	1.00	.95
101 mm	(4")	.59	1.01	.97	.96	1.06	1.08	1.00
152 mm	(6")	1.18	1.36	1.02	1.02	1.12	1.07	1.15

Forms Available

Thickness		Width	Length	
76 mm	(3")	915-1524 mm (36"-60") 1829-2438 mm (72"-96")	30.48 m	(100')
89 mm	(3½")		30.48 m	(100')
101 mm	(4")		22.86 m	(75')
127 mm	(5")	1829-2438 mm (72"-96")	15.24 m	(50')
152 mm	(6")	915-1524 mm (36"-60") 1829-2438 mm (72"-96")	15.24 m	(50')
203 mm	(8")		12.19 m	(40')
241 mm	(9½")		7.62 m	(25')

R-Value (ASTM C 518 @ 24°C MT)

Thickness		R-Value	RSI
76 mm	(3")	10.3	1.8
89 mm	(3½")	12.0	2.1
101 mm	(4")	13.6	2.3
127 mm	(5")	17.2	3.0
152 mm	(6")	20.6	3.5
203 mm	(8")	25.0	4.4
241 mm	(9½")	30.0	5.3

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or visit us online at www.knaufinsulation.us



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Notes

The chemical and physical properties of Knauf Unfaced Metal Building Insulation represent typical average values determined in accordance with accepted test methods. 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.

Caution

If Knauf Unfaced Metal Building Insulation is compressed beyond a 5:1 ratio during or after lamination, the product can be damaged.

Check with your Knauf Insulation sales representative to assure information is current.



LEED Eligible Product

Use of this product may help building projects meet green building standards as set by the Leadership in Energy and Environmental Design (LEED) Green Building Rating System. Credit 4.1 - 4.2 Recycled Content
Credit 5.1 - 5.2 Regional Materials



Knauf Canadian Unfaced Metal Building Insulation with ECOSE Technology products are certified for indoor air quality as a low emitting product by The GREENGUARD Environmental Institute to both the GREENGUARD Certification ProgramSM and the more stringent GREENGUARD for Children and SchoolsSM standard.

www.greenguard.org

The GREENGUARD INDOOR AIR QUALITY CERTIFIED Mark is a registered certification mark used under license through the GREENGUARD Environmental Institute.

