

Stonewool Insulation for Thermal, Acoustic and Fire Safety Applications in Buildings



ROCKINSUL RB Slabs

Rockwool India Pvt Ltd

Plot No. 21 & 22, Survey No. 64 (part)

Lane Opp. Cyber Towers

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1987 - 2017 **30** years **ROCKWOOL INDIA**
Excellence Through Insulation Pvt Ltd

ROCKINSUL Building Roll

- ROCKINSUL Building Roll are manufactured from stable stonewool fibres bonded with thermosetting resins.
- The Stonewool fibres are fine and uniformly distributed to ensure consistent properties in the building roll.
- Compliance with IS 8183, ASTM & BS

Standard Dimensions

Density (kg/m ³)	Thickness (mm)		Length (m)	Width (mm)
	Min.	Max.		
36	75	100	5 to 10	1,100 <small>(Width overlap)</small>
48	50	100	5 to 10	1,200 <small>(Without overlap)</small>
64	40	100	5 to 8	

Facing Types

ROCKINSUL Building Rolls are available with different facing to provide efficient vapour barrier.

- ALG facing
- FSK facing
- Kraft paper facing



PERFORMANCE

Working Temperature

Fibre : Up to 750 °C

Facing : 100 °C

At temperatures in excess of 230 °C limited migration of binder may occur in the insulation in contact with the hot face. This does not impair the insulation performance.

Thermal Performance (K Value)

The thermal conductivity of ROCKINSUL Building Rolls as per ASTM C 177, 518, IS 3346 is displayed.

Below:

Mean Temperature	Thermal Conductivity for the following densities						
	W/m.k			Btu.in/ft ² h.°f			
	°C	°F	36 kg/m ³	48 kg/m ³	64 kg/m ³	2.250 lb/ft ³	3.000 lb/ft ³
10	50	0.036	0.033	0.031	0.250	0.229	0.215
25	77	0.039	0.035	0.033	0.270	0.243	0.229
50	122	0.047	0.042	0.038	0.326	0.291	0.263
100	212	0.057	0.051	0.046	0.395	0.354	0.319

Thermal Performance (R Value)

Thickness		Thermal Resistance at 25 °C Mean Temperature for the following densities						
mm	inch	m ² k/w			ft ² h.°F/Btu			
		36 kg/m ³	48 kg/m ³	64 kg/m ³	2.250 lb/ft ³	3.000 lb/ft ³	4.000 lb/ft ³	
40	1.5	-	-	1.212	-	-	6.556	
50	2.0	-	1.429	1.515	-	8.230	8.741	
60	2.5	-	1.714	1.818	-	10.288	10.926	
75	3.0	1.923	2.143	2.273	11.111	12.346	13.112	
100	4.0	2.564	2.857	3.030	14.815	16.461	17.482	

Acoustic Performance

ROCKINSUL Building Rolls achieve excellent acoustic performances (sound absorption coefficients and sound insulation) when tested in accordance with various relevant ASTM standards.

ROCKINSUL Building Rolls achieve Noise Reduction Coefficient (NRC) values up to 1.05, when tested with accordance with ASTM C423.

Fire Safety Performance

ROCKINSUL Building Roll are non-combustible when tested in accordance with IS 3144, BS 476 (part 4), ISO 1182 and ASTM E 136 and are classified as Class A1, in accordance with European norms.

Unfaced, FSK & ALG faced ROCKINSUL Building Roll have the following fire safety rating achievements:

1. Class 1 surface spread of flame in accordance to BS 476 (part 7)
2. Class o in accordance to the BS 476 (part 6 & 7) and to British Building Regulations.
3. Surface burning characteristics in accordance to ASTM E84 / UL 723
 - a. Fire Spread Index : Less than 25
 - b. Smoke Developed Index : Less than 50

Moisture Absorption Performance

ROCKINSUL Building Roll absorb < 1% by volume when tested in accordance with BS 2972, ASTM C 1104 /1104 M, and do not absorb moisture from ambient air or from water by capillary action. Only water under pressure can water into stonewool insulation products; however, it quickly dries out due to the open cell structure of ROCKINSUL Building Roll.

When tested in accordance with ASTM E96, FSK-faced ROCKINSUL Building Roll achieve water vapour permeability of ≤0.02 perm & ALG-faced Rigid Slabs achieve zero water vapour permeability.

Applications

ROCKINSUL Building Roll are commonly used on the walls and roofs (under and over purlins) of pre-engineer buildings (PEB), pre-fabricated houses, poultry farms and HVAC duct insulation.



Advantages of ALG facing

- Most economical solution for roof thermal insulation
- ALG, aluminium foil laminated with glass fabric protects the system from normal mechanical abuses and stops vapour migration
- High bursting strength of 270 psi - over 3 times higher than FSK
- High tensile strength of 14.5 KN / m - over 3 times higher than FSK
- High mechanical strength, durability & dimensional stability
- Zero water vapour permeability
- Fire safe facing – ALG facing achieves class O when tested as per BS 476 (part 6 & part 7)
- Can eliminate the use of additional protection like weld mesh

Handling & Storage

ROCKINSUL Building Rolls should be stored indoors. If stored outside, they should be stacked clear of ground and covered with a securely anchored weather proof sheet.



UL : R9703

ROCKINSUL