INNER® ENGINEERING

DESIGN • COMFORT • INSULATION

The Power of 3 in 1

INROCK®

RB SLAB INSULATION

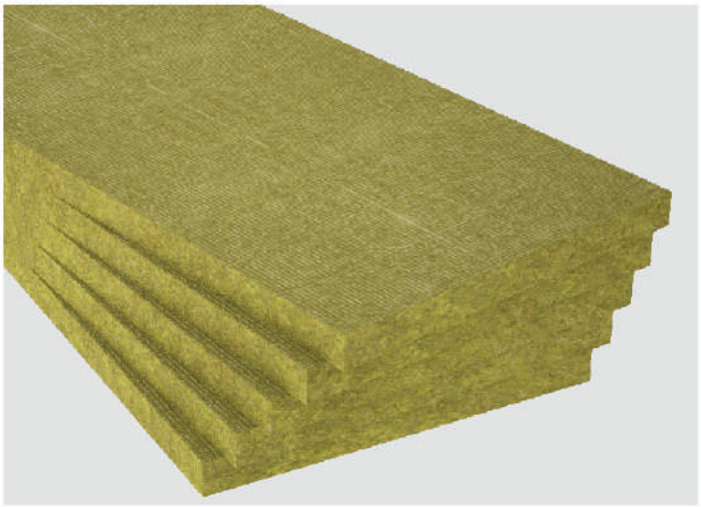
DESIGN
COMFORT
INSULATION

INROCK® RB SLABS

- Resin bonded slab consists of long fine fibres spun from molten natural rocks, bonded with a thermosetting resin which provides excellent thermal insulation, fire protection and sound absorption.
- Incombustible when tested as per IS: 3144. Melting point of fibre is above 1000°C & complies with BS - 476 Part 4 and ASTM E -136.

FACINGS

Resin Bonded slabs are available in plain or with facing of Aluminium Foil (FSK) and Black Glass Tissue (BGT).



STANDARD DIMENSIONS

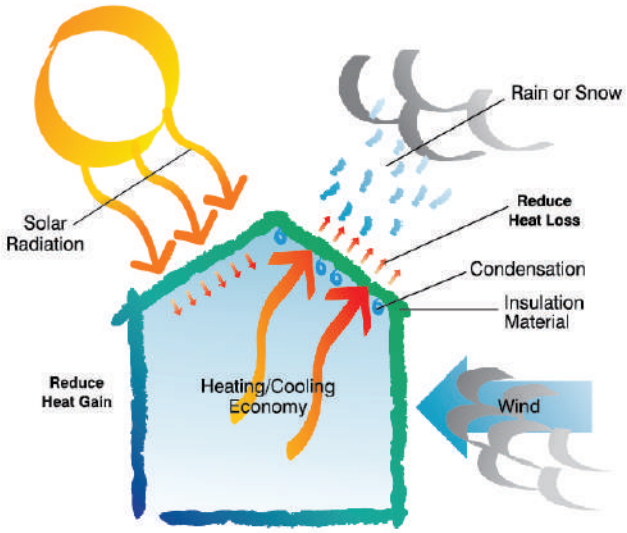
Thickness (mm)	Width (mm)	Length (mm)
30 to 200	500	1000

STANDARD DENSITY

Density Kg/m3	Thickness (mm)
48	50 - 200
80	30 - 200
96	25 - 150
100	25 - 150
120	25 - 150
128	25 - 150
140	25 - 100
144	25 - 100
150	25 - 100

TECHNICAL DATA

Chemical Composition	Alumina and Silica Oxide
Fire Resistant	A1 (As Per ASTM E 84)
Temperature Range	Up to 750°C (As Per IS:8183:94)
ph Value	7 to 8
Chloride Content	0.004%
Sulphur Content	0.2%
Physical Properties	CFC & HCFC free Asbestos free Less shot content Less smoke developed Less spread of flame Corrosion resistant High compression resistance
Biological Properties	Non hygroscopic & Rot proof
Environmental Effect	Zero Ozone Depletion Potential(ODP) Global Warming Potential (GWP)<5
Moisture Absorption	0.4%
Product Specification	1000 mm X 500 mm (As per IS:8183:1993 and ASTM C 612)



THERMAL CONDUCTIVITY TABLE (AS PER IS:8183, IS:3346, ASTM C 518)

Mean Temp. (°C)	K Value(W/m.K) at different Mean Temperatures and Various Densities								
	Density Kg/m³								
	48	80	96	100	120	128	140	144	150
50	0.042	0.038	0.037	0.037	0.038	0.039	0.037	0.039	0.039
100	0.051	0.044	0.043	0.043	0.045	0.046	0.043	0.046	0.046
150	0.059	0.053	0.050	0.051	0.051	0.052	0.049	0.051	0.052
200	0.074	0.062	0.059	0.060	0.060	0.060	0.058	0.059	0.059
250	0.088	0.070	0.068	0.069	0.070	0.070	0.068	0.069	0.069
300	0.101	0.086	0.081	0.082	0.083	0.082	0.080	0.081	0.081
350	0.120	0.102	0.095	0.095	0.091	0.091	0.093	0.091	0.091

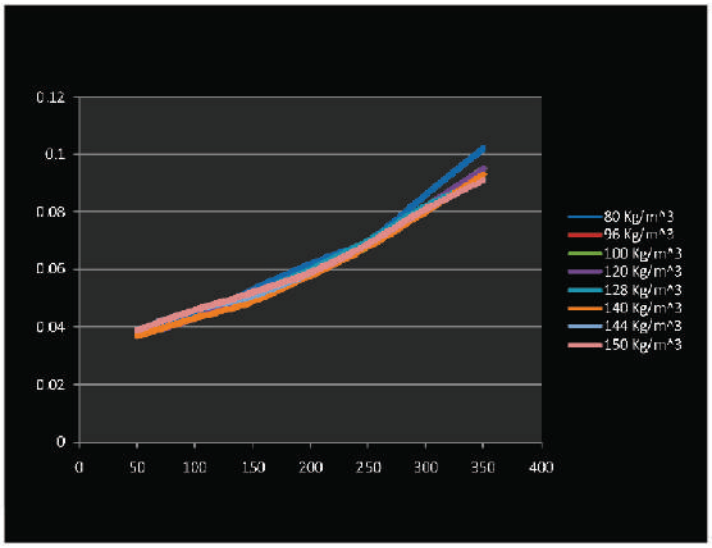
Group 1 (Max Hot Face Temp. upto 250°C)

Group 2 (Max Hot Face Temp. upto 400°C)

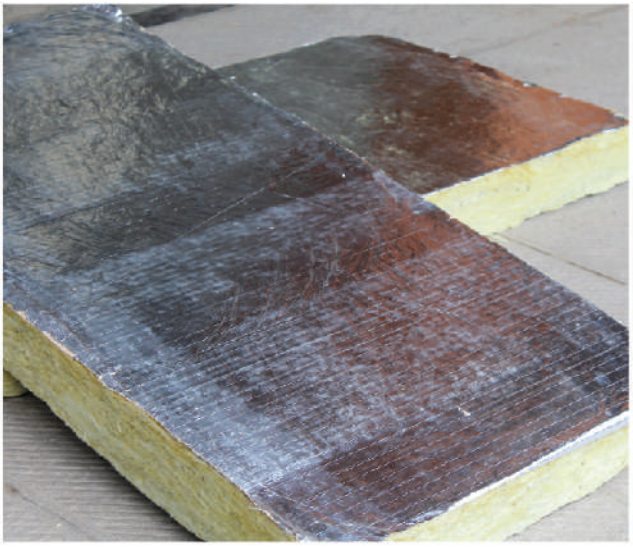
Group 3 (Max Hot Face Temp. upto 550°C)

Group 4 (Max Hot Face Temp. upto 750°C)

(Max Recommanded Surface Temp.)



Thermal Conductivity vs Mean Temp.



Faced with FSK

THERMAL RESISTANCE (R-VALUE)

THICKNESS	R Value at 50° Mean Temp in ft²*°F*h/Btu								
	Density Kg/m³								
mm	48	80	96	100	120	128	140	144	150
25	3.40	3.73	3.86	3.86	3.73	3.63	3.86	3.63	3.63
30	4.03	4.48	4.59	4.59	4.48	4.37	4.59	4.37	4.37
50	6.75	7.47	7.67	7.67	7.47	7.26	7.67	7.26	7.26
75	10.13	11.20	11.46	11.46	11.20	10.90	11.46	10.90	10.90
100	13.51	14.94	15.33	15.33	14.94	14.53	15.33	14.53	14.53

INROCK®
RB SLAB INSULATION

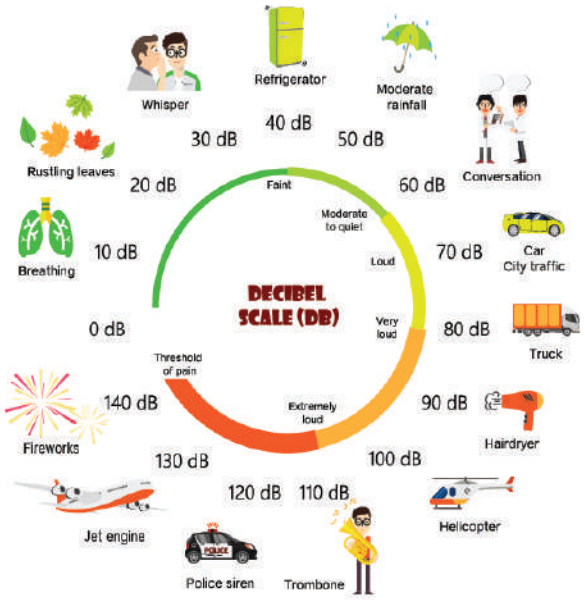
ACOUSTIC PROPERTIES OF INROCK® RB SLABS

- Fibrous Structure
- High Porosity
- Higher Resistance To Air Flow
- Good Fibre Orientation
- Fine Fibre Content

NOISE REDUCTION COEFFICIENT (AS PER IS:8225:87)

Frequency (HZ)	4850RBS/ PL	8050RBS/ PL	8075RBS/ PL	9650RBS/ PL	10075RBS/ PL	14050RBS/ PL
250	0.71	0.75	0.93	0.79	0.99	0.84
500	0.98	1.02	1.02	1.02	1.04	1.04
1000	1.04	1.03	1.04	1.03	1.07	1.04
2000	0.95	0.96	1.0	0.96	0.97	1.00
NRC	0.92	0.94	0.98	0.95	1.00	0.98

Faced with BGT



INROCK® RB SLABS APPLICATIONS

INDUSTRIAL APPLICATIONS

- Tanks
- Large Vessels
- Boilers
- Ovens
- HVAC Duct
- Textile Machinery
- Chimney
- Power Plant
- Furnace

COMMERCIAL APPLICATIONS

- False Ceiling
- Under Deck
- Wall Insulation
- Partition
- Roofing
- Cavity Wall
- Curtain Wall
- Sandwich Panels
- Sound Proofing of Auditorium
- Stadium
- Airport

FEATURES

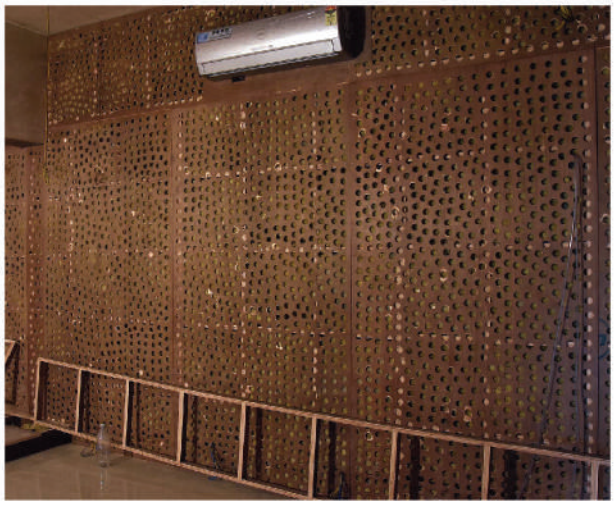
- Low Thermal Conductivity
- High Temperature Application
- High Sound Absorption
- High Durability
- Non Hygroscopic
- Water Resistance
- Weather Proof
- Fire Resistance
- Non Combustible
- Non Inflammable
- Deformation Resistant
- Easy To Handle
- Easy To Cut
- Easy To Apply
- Non Corrosive
- Non Carcinogenic

APPLICATION (THERMAL) UNDER DECK INSULATION

- Material – INROCK RB Slabs 80 X 50/FSK
- R-Value - 7.28 (hr*ft2*°F/Btu) @ 35°C Mean Temperature

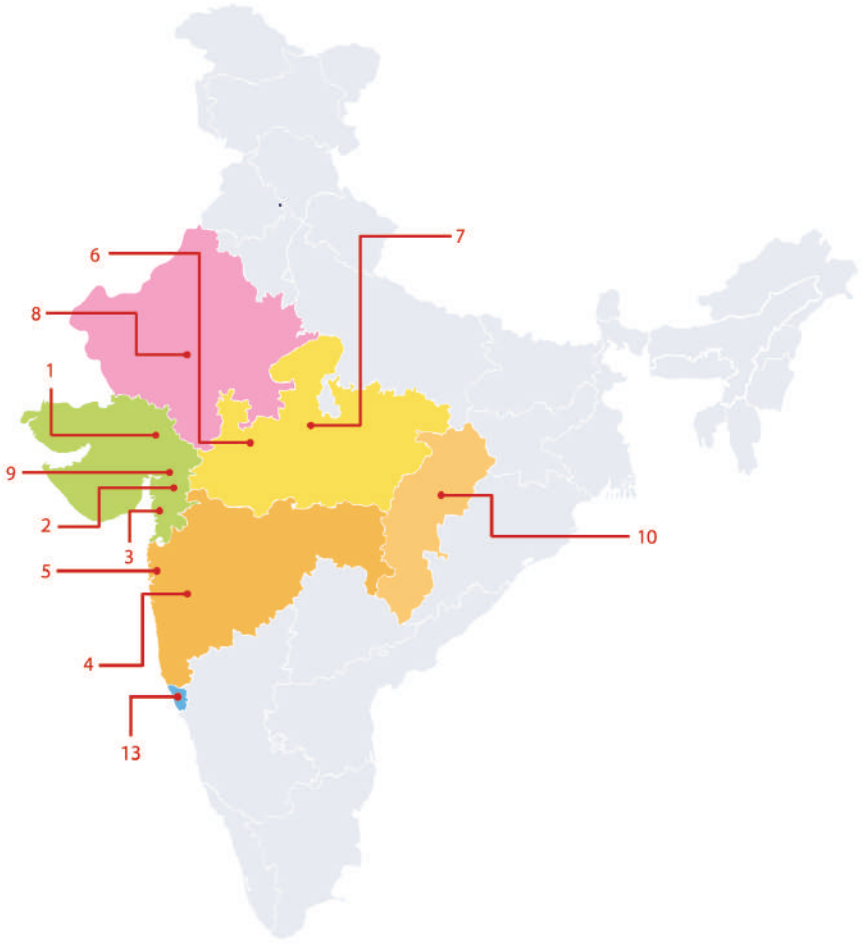
APPLICATION (ACOUSTIC) INSULATION

- Material - INROCK RB Slabs 80 X 50/PL



APPLICATION (ACOUSTIC) UNDER DECK INSULATION

- Material - INROCK RB Slabs 140 X 50/BGT



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