



Where  
Energy Saving  
Matters



**SUNROCK<sup>®</sup>**  
*Insulating the World*

**Thermocare Rock wool (I) Pvt. Ltd.**

# OUR COMPANY

## WE CARE



●  
About Saving Energy

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●  
About Optimally Utilizing  
Resources

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●  
About You

## WE ARE

- Thermocare Rock wool (I) Pvt. Ltd. is one of the leading & recognised manufacturer of Rockfiber/Stonewool insulation product under the brand name of **SUNROCK®**
- A unique combination of people & technology together with sound business ethics & a focus on product development contributing in raising the benchmark of this competitive global industry.
- Located in central India with convenient come and go advantageous geographical location, having presence in major cities like Hyderabad, Chennai, Bengaluru, Ahmedabad, Delhi, Pune and Mumbai.

## WE AIM

- Towards insulating the world.
- Towards saving the energy thereby increasing the comfort living of people across the world thereby creating sustainable environment.
- With our state-of-art technology, process and infrastructure to cross many more milestones in our quest for manufacturing excellence.

## WE WORK

- On 360° improvement basis, what this all mean for you is faster lead time and greater flexibility in product line to meet your growing demand and changing needs.
- To serve with unmatched quality, dedicated work force in order to achieve 100% customer satisfaction.

## ABOUT SUNROCK®

**SUNROCK®** our brand, registered & in force since 2006 has now created a benchmark for the industry & is a highly innovative insulation material created with the most advanced technology to meet IS, BS, EN & ASTM Standards.

**SUNROCK®** offers a wide range of insulation products for different application of Thermal and Acoustical areas.

Keeps every possible advantage of the characteristics of rocks in its products among which Fire Proof, Sound Proof, Eco-Friendly & Non-Hazardous are few to highlight.

To design a best fit Insulation System for specific job **SUNROCK®** caters a pool of choices of products in various Forms, Densities and Thicknesses with different Facings.

## WHY SUNROCK®

**SUNROCK®** products are manufactured from various types of dia-base rocks, mainly basalt of specific predetermined chemical composition, melted at high temperature in a technically advanced process. Fine hairline fibres are then produced by spinning the molten mixture in a very high speed through multi spun disc system and then fibres are bonded with a special thermosetting resin.

Some very distinguished features making **SUNROCK®** the first choice for Thermal and Acoustic Insulation solution are:

1. 100% Fire Proof, classified as CLASSO, when tested according to BS 476 with its various relevant parts.
2. Noise reduction coefficient (NRC) of **SUNROCK®** stonewool products are very high.
3. Very Low K-Value (Thermal Conductivity) at relatively higher mean temperatures.
4. Flame Spread and Smoke developed index is 0 when tested according to ASTM E84.
5. A wide range of application from -50°C to 750°C.
6. Excellent resilience to compression.
7. Do not cause, initiate or promote any kind of corrosion.
8. **SUNROCK®** products are water repellent and absorbs less than 1% when tested according to BS2972 complying AGIQ 136.

## USPs

1. **SUNROCK®** products are good resistant to water vapours, most common salts and chemicals & when tested as per IS, BS, and ASTM standards it is proved that the material exhibits excellent resistance to moisture.
2. **SUNROCK®** products are approved from various prestigious institutions like DNV, EIL, NTPC, BHEL, MECON, Indian Railways, Defence etc.
3. **SUNROCK®** has a large range of insulation products which varies in its form, resin content, density, thickness and type of facing. This helps customer for a tailored fit insulation solution to their specific jobs.

# SUNROCK<sup>®</sup> STONEWOOL INSULATION CHARACTERISTICS

## FIRE PROOF INSULATION

**SUNROCK<sup>®</sup>** stonewool products are noncombustible and non reactive to fire thereby restricting it's propagation and standing still at fire exposed temperature.



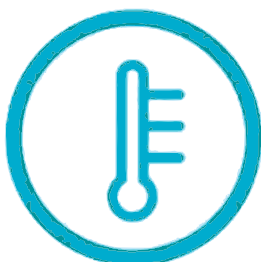
## HIGH SOUND ABSORPTION

**SUNROCK<sup>®</sup>** products have open cell structure that enables them to absorb most of the sound waves incident to its surface and thus **SUNROCK<sup>®</sup>** products are highly used in Auditoriums, Indoor Stadiums, Airports etc. as well as in industrial establishments for acoustical insulation.



## THERMAL INSULATION

Use of **SUNROCK<sup>®</sup>** products reduces heat transfer through the walls and the roof drastically. Energy costs are touching skies, the best way to reduce it by making system energy efficient. Excellent level of thermal conductivity provided by **SUNROCK<sup>®</sup>** products ensures thermal comfort of passengers.



## BIOLOGICALLY INERT

**SUNROCK<sup>®</sup>** products are inorganic, biologically inert & rot proof material that does not encourage or support the growth of fungi, moulds, bacteria or offer sustenance to insects, when tested as per ASTM C1338.



## NO HEALTH HAZARD

**SUNROCK<sup>®</sup>** stonewool fibers are asbestos free and Non-Carcinogenic. **SUNROCK<sup>®</sup>** fibers can be classified as Group 3 (Not classifiable as to their carcinogenicity to humans) by the classification of International Association of Cancer Research.



## EASY TO HANDLE AND INSTALL

**SUNROCK<sup>®</sup>** products are manufactured in various densities & thicknesses as per the need of application.

**SUNROCK<sup>®</sup>** insulations doesn't need special tools while application, it can be easily shaped with cutter or carpenter saw.



# SUNROCK® STONEWOOL FIRE PROOF PRODUCTS

(Ensuring Your Protection)



**SUNROCK®** Fire Proof products are made from the selected naturally occurring basalt rock having extra ordinary properties against fire that it embraces volcanoes beneath/on the earth's crust. The **SUNROCK®** Fire Proof Products stands still on direct exposure to flames and withstand maximum upto 1000°C.

**SUNROCK®** Fire Proof products have, thus, unmatched fire retardancy properties which not only saves you but also your valuable assets from fire accidents.

**SUNROCK®** Products are tested according to EN 13501 - 1 at Exova Waringtonfire, U.K.

Acc. to ASTM E 84/UL 723

## **CLASS A**

Flame Spread Index 0

Smoke Developed Index 0

Acc. to BS 476 - Part 4, 5, 6 & 7

## **CLASS O**

Incombustible, Flame Retardant & Transfers less heat

Acc. to EN 13501-1

## **EURO CLASS**

**A 1** Flame Retardant & Incombustible

**s 0** Develop No Smoke

**d 0** Develop No Flame Droplets

# SUNROCK® STONEWOOL ACOUSTIC INSULATION BOARDS

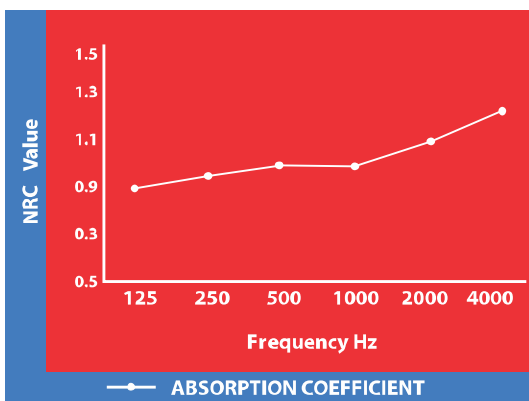
(Making You More Audible)



SUNROCK® AIB range of Rockfiber/Stonewool products has a unique grain structure constituting porosity with mass which restricts the sound transmission in extraordinarily high rate.

A high class sound insulation with desired STC (Sound Transmission Class) can be achieved with the high sound absorbing power and noise reduction coefficient (1.0) of SUNROCK® Acoustic Insulation Boards (AIB).

## NRC OF SUNROCK® AIB PRODUCTS



Rooms	Sound Level (dB)	SUNROCK® AIB Solution	NRC Value	Reduced Sound Level (dB)	STC Class
Theaters	90-120	AIB 6450	0.95	50-55	A
Disco	100-120	AIB 9650	0.90	50-55	A
Airports	140-160	AIB 9670	0.90	50-55	A
Halls & Auditorium	80-100	AIB 4870/AIB 6450	0.95	50-55	A
Engine Room	100-120	AIB 6450	0.95	50-60	A
Compressor Room	100-120	AIB 6450	0.95	50-60	A
Office Rooms/conference Halls	70-80	AIB 4870	1.00	45-50	A
Hospital/nursing Area	75-100	AIB 4850	1.00	45-50	A
Technical Space & Industrial Halls	70-100	AIB 4850	1.00	45-50	A

# SUNROCK® STONEWOOL THERMAL INSULATION PRODUCTS

(Providing Thermal Comfort)

## SUNROCK® BENEFITS

- Saves fuel upto 40%.
- Complies with all relevant BS, ASTM, EN and IS Standards.
- Easy, Safe and absolute solution of industrial application.
- Asbestos Free, Non Carcinogenic and no traces of Corrosion Inhibitors.



For boilers, tanks, turbines & other curved surfaces :

**SUNROCK® LIGHTLY RESIN BONDED STONEWOOL MATTRESSES**



For Insulation of High Temperature Columns, Compressor rooms, Roofs, Ventilators etc :

**SUNROCK® RESIN BONDED STONEWOOL SLABS**



For Insulation Over Pipes (Pipe Cover) :

**SUNROCK® SECTIONAL PIPE STONEWOOL INSULATION**

**SUNROCK®**  
*Insulating the World*

# SUNROCK® LIGHTLY RESIN BONDED STONEWOOL MATTRESSES



**SUNROCK®** Lightly Resin Bonded (LRB) Stonewool mattresses are made out of molten rocks (Basalt) transformed into fibres and then bonded with thermosetting binder forming mattress and then it is stitched with one side or both sides GI or SS hexagonal wire netting.

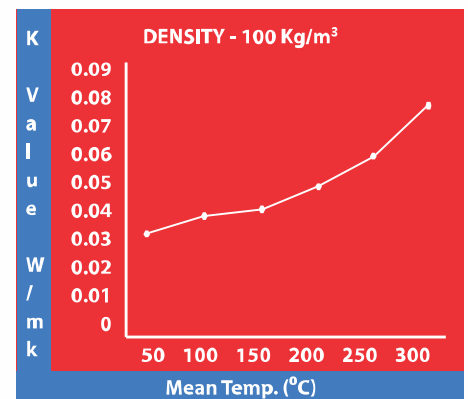
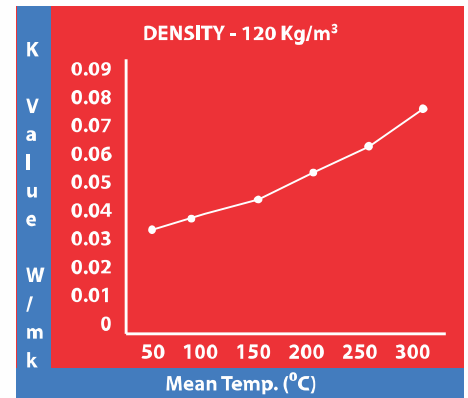
**SUNROCK®** LRB Stonewool mattresses are exceptionally suitable for wrapping large curve surface or cutting to fit over irregular surfaces like Boilers, Equipments, E.S.P, Ducts, Ovens, Furnaces, Tanks, Pipe Lines, Chimney walls etc.

## TECHNICAL PARAMETERS

PROPERTY	VALUE							SPECIFICATION
	TEMPERATURE	50	100	150	200	250	300	
THERMAL CONDUCTIVITY (W/mk)								IS : 3346/1980
	K	0.043	0.052	0.06	0.066	0.075	0.0823	
FIRE RESISTANT	CLASS O							BS 476 P-4,9
MAXIMUM SERVICE TEMPERATURE	-50°C TO 750°C							IS : 8183 : 1993
WATER ABSORPTION %	<1 %							ASTM C592
CHLORIDE CONTENT (WEIGHT%)	MAX 0.001 ≤10 mg/Kg							IS : 8183 :1993 & ASTM C 591 ASTM C871
SHOT CONTENTS MAXIMUM (% WEIGHT)	5							IS :8183 : 1993
FLAME SPREAD INDEX	0 - 25 (passes)							ASTM E 84
SMOKE DEVELOPED	0 - 25 (passes)							ASTM E 84

### PRODUCT SPECIFICATIONS - IS : 8183 : 1993, ASTM C 592

SIZE OF MATTRESS : 1640mm x 1220mm  
 THICKNESS : 25mm to 150mm  
 DENSITY : 85 to 200 Kg/M<sup>3</sup>  
 METAL FACING : G. I or S.S., Hexagonal W/N



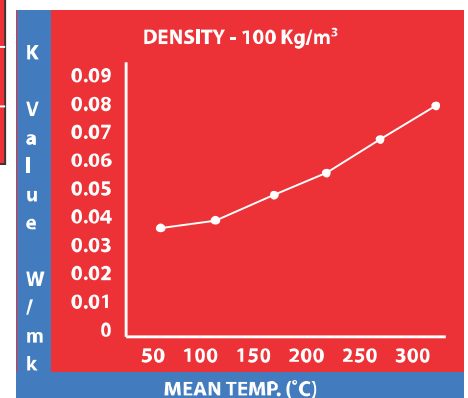
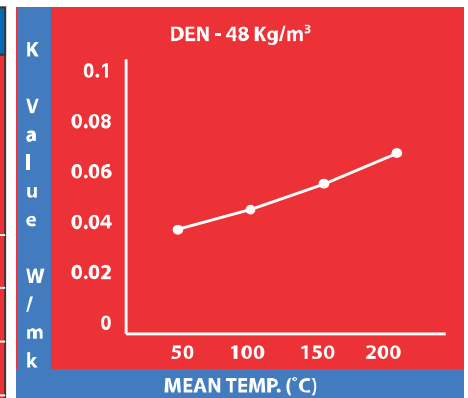


# SUNROCK<sup>®</sup> RESIN BONDED STONEWOOL SLABS



**SUNROCK<sup>®</sup>** Resin Bonded (RB) Rigid Stonewool Slabs are designed for thermal and acoustical insulation of flat or slightly curved surfaces. They are efficiently used in Under Deck Insulation, Air Conditioning Duct Insulation, Sound Proofing of Auditoriums, Conference halls, Stadiums, Airports, Furnaces, Ovens, Cable Ducts, Tanks, Autoclaves and Chimneys, DG sets, Solar panels etc.

PROPERTY	VALUE					SPECIFICATION
THERMAL CONDUCTIVITY(W/mk) & THERMAL RESISTANCE (K. m <sup>2</sup> /W)	TEMPERATURE (°C)	50	100	150	200	IS : 8183, IS : 3346
	K-VALUE	0.037	0.043	0.067	0.08	
	R-VALUE	1.35	1.163	0.75	0.6	
FIRE RESISTANT	CLASS O					BS 476 P-4,6,7,8,9
SERVICE TEMPERATURE	-50°C to 750°C					IS : 8183 :1993
FLAME SPREAD INDEX	0 - 25 (passed)					ASTM E 84
SMOKE DEVELOPED INDEX	0 - 25 (passed)					ASTM E 84
WATER ABSORPTION (%)	<1 %					ASTM C 612, C1104
CHLORIDE CONTENT (WEIGHT %)	MAX 0.001 ≤10 mg/Kg					IS 8183:93, ASTM C 612 ASTM C871
NOISE REDUCTION COEFFICIENT	0.90					IS : 8225 : 87



## PRODUCT SPECIFICATIONS - IS : 8183 : 1993, ASTM C 612

SIZE OF SLABS	: 1000mm x 500mm
THICKNESS	: 25mm to 150mm
DENSITY	: 48 to 200 Kg/M <sup>3</sup>
FACING	: With Aluminium FSK/Kraft Paper or Without Facing

# SUNROCK® STONEWOOL PIPE INSULATIONS



**SUNROCK®** Pre-formed stonewool pipe insulation are manufactured by spinning a molten mixture of natural rocks & recycled products into fine wool like fibres. They are in cylindrical shape and are supplied in split and hinged for easy snap-on assembly. **SUNROCK®** Preformed Sectional Pipes are used over a wide temperature range for Hot and Cold Air, Water, Steam and Oil Pipelines.

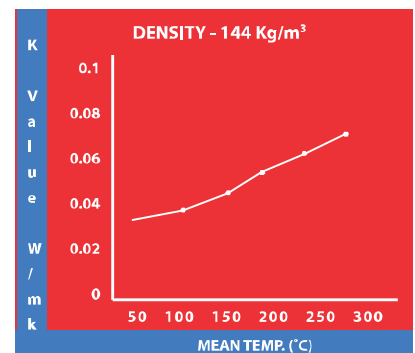


## TECHNICAL PARAMETERS

PROPERTY	VALUE	SPECIFICATION														
THERMAL CONDUCTIVITY (W/MK)	<table border="1"> <thead> <tr> <th>TEMP</th> <th>150</th> <th>200</th> <th>250</th> <th>300</th> <th>400</th> <th>500</th> </tr> </thead> <tbody> <tr> <td>K</td> <td>0.051</td> <td>0.061</td> <td>0.072</td> <td>0.086</td> <td>0.13</td> <td>0.154</td> </tr> </tbody> </table>	TEMP	150	200	250	300	400	500	K	0.051	0.061	0.072	0.086	0.13	0.154	IS : 9842 : 1994 & ASTM C 177
TEMP	150	200	250	300	400	500										
K	0.051	0.061	0.072	0.086	0.13	0.154										
FLAME RESISTANCE OR FLAME SPREAD INDEX	CLASS I Maximum 0 - 25	BS:476 (P-4,6,7&9) ASTM E84														
NOISE REDUCTION COEFFICIENT	0.90	IS : 8225 : 87														
CHLORIDE CONTENT (WEIGHT%)	MAX 0.001 ≤ 10 mg/kg	IS: 9842 : 1994 & Astm C 547 ASTM C871														
SULPHUR CONTENT (WEIGHT %)	MAX 0.12	IS : 8183 : 93														
COMPRESSIVE STRENGTH	8kPa (1.16psi) at 10% compressi on	ASTM C 165														
DIMENSIONAL STABILITY	IN ACCORDANCE WITH	ASTM C 547														
WATER ABSORPTION (%)	<1%	ASTM C 547														

## PRODUCT SPECIFICATIONS - IS : 9842 : 1994, ASTM C 547

Length of the Pipe : 1000mm  
 Nominal Bore : 1/2" to 24"  
 Thickness : 25mm to 100mm  
 Density : 144 to 250 Kg/M<sup>3</sup>  
 Facing : With or Without Al. Foil



# SUNROCK<sup>®</sup> MARINE BOARDS

Marine and Offshore requirements are different as it operates in different conditions which requires customized products for thermal insulation. Standards and requirements are becoming more stringent over recent years across the shipbuilding industry. Major concern of the industry can be observed as below:

- \* Fire Protection of constructions and components.
- \* Reducing energy consumptions.
- \* Thermal comfort of the passengers.
- \* Good acoustic properties of constructions and devices.
- \* Meeting the requirements and product standards in accordance to IMO.



**SUNROCK<sup>®</sup>** Marine Boards are made from the selected natural occurring basalt rocks having extra ordinary property against fire that it embraces volcanoes beneath/on the earth crust. Boards are tailored as per marine and offshore specific requirements.

**SUNROCK<sup>®</sup>** Marine Boards complies to all IMO rules & requirements. **SUNROCK<sup>®</sup>** Marine product range provides perfect solution to challenging shipbuilding requirements. World class products with conventional advantage of acoustic, thermal & fire insulation, with substantial weight savings.

## **SUNROCK<sup>®</sup>** Marine Board Advantages

- \* Highest Fire Safety.
- \* Perfect Sound Absorption.
- \* Water Repellent.
- \* Easy & Fast installation.
- \* Excellent Thermal Properties.



# SUNROCK<sup>®</sup> STONEWOOL ROLLS



## PRODUCT SPECIFICATIONS IS : 8183 : 1993

Length of Roll	: 5m to 10m
Width of Roll	: 1.2m
Thickness	: 50mm or 100mm
Density	: 48 & 64 Kg/M <sup>3</sup>
Facing	: FSK & ALG

The development of **SUNROCK<sup>®</sup>** Stonewool Roll is based on the exclusive requirements for insulation of Pre-Engineered Buildings, Large Sheds, and Pre-fabricated houses.

### ● VAPOUR BARRIER

**SUNROCK<sup>®</sup>** Stonewool Rolls have outstanding characteristics of water repellency with less than 0.1% of water vapor sorption & no capillary action, not only it gives comparatively higher thermal efficiency but also increases the shelf life of the roof (sheets).

### PREMIUM FACINGS

#### ALU-GLASS (FOIL)

- Alu-Glass facing or ALG facing is glass fibers weaved aluminum foil which has a reflective properties on both sides.
- The tremendous Strength (Tension & Burst) makes it best suited for PEB Insulation and it also substitutes the Wire Mesh Support in Roofing Walls (External & Internal).
- 0% Water intrusion makes it moisture proof insulation as well as best suited for cold storage and alike sheds.
- Class O fire resistant.

#### Aluminium FSK

- 0.03 emissivity makes it excellent radiant barrier.
- Higher Tensile values make it strong enough to sustain application load.
- Dimensionally stable after adverse temperature change around the application area.
- Class A fire resistant.



### ● FIRE SHIELD

According to BS 476 (Part 7)

#### CLASS I

No Propagation of flames when the surface is entertained by fire

According to EN 13501-1

#### EUROCLASS A 1 s0 d0

According to ASTM E84/UL723

#### CLASS A

Flame Spread Index 0

Smoke Developed Index 0

### ● WATER REPELLENCY



According to BS 2972 absorbs less than 1%

According to ASTM C 1104,

C 612 & IS 8183 absorbs less than 1%

### ● ACOUSTICS



Sound Transmission Class-A

Noise Reduction Coefficient - (1.0)



Aluminium - FSK

DENSITY ( kg/m3)	THICKNESS (mm)	K-VALUE & R-VALUE				
		TEMPERATURE (°C)	20	40	50	100
48	50	K-VALUE (W/m.K)	0.037	0.043	0.049	0.058
		R-VALUE (m2/K/W)	1.35	1.16	1.02	0.86
		TEMPERATURE (°C)	20	40	50	100
64	50	K-VALUE (W/m.K)	0.031	0.034	0.038	0.045
		R-VALUE (m2/K/W)	1.61	1.47	1.32	1.11
		TEMPERATURE (°C)	20	40	50	100

## PRODUCT COMPARISON



Alu Glass - ALG

PROPERTIES	SUNROCK STONEWOOL ROLL	BUBBLE INSULATION	XLPE INSULATION	FIBRE GLASS INSULATION
Fire Proof	√	x	x	√
Sound Proof	√	x	√	√
Smoke Develop Index-0	√	x	x	√
Flame Droplet-0	√	x	x	√
Fire Rating 120 mins.	√	x	x	x
Incombustibility	√	x	x	√
Doesn't Emits Toxic Gases While Burning	√	x	x	√
Max. Service Temperature	750°C	115°C	115°C	250°C



Black Glass Tissue - BGT

## PRODUCT SELECTION - FACING

### ALU GLASS (ALG)

Typical Properties	Value (metric)	Test Method
Basic Weight	100 gsm	Scale
Tensile Strength	15 kN/m	ASTM D 828
Burst strength	300N/m	ASTM D 774
Temperature Resistance	Remains Flexible No Delamination	ASTM C 1263 -29°C to +66°C
Water Permeance	0 ng/N.s	ASTM E 96
Dimensional Stability	Less than 0.5%	ASTM D 1204 @ 150°F (56°C)
Emissivity	0.03	ASTM E 408

### ALUMINIUM-FSK

Typical Properties	Value (metric)	Test Method
Basic Weight	100 gsm	Scale
Tensile Strength	8000 N/m-MD 4000 N/m-XD	ASTM D 828
Burst Strength	30 N/m	ASTM D 774
Temperature Resistance	Remains Flexible No Delamination	ASTM C 1263 -29° C to +66°C
Dimensional Stability	Less than 0.5%	ASTM C 1204@ 150°F (65°C)
Emissivity	0.03	ASTM E 408



Without Facing

# OUR ACHIEVEMENTS



**“National Entrepreneurship Award”**  
- Govt. of India



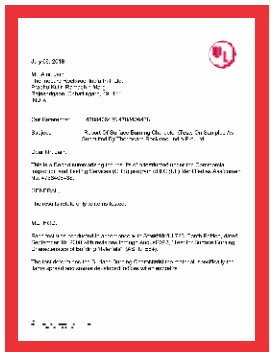
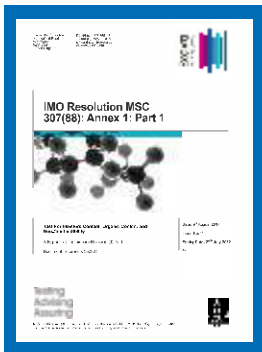
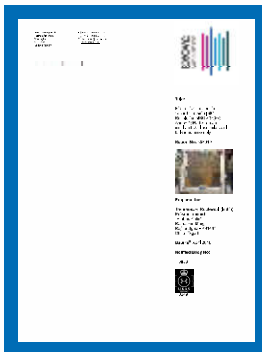
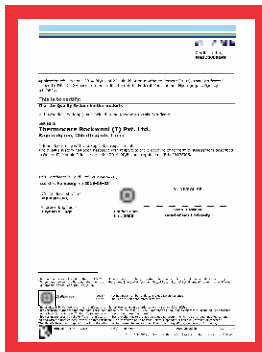
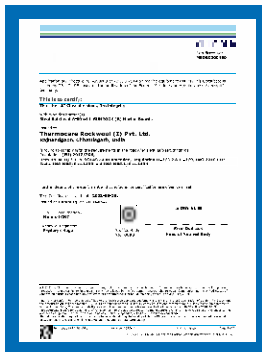
**First Prize for “Export Promotion”**  
- Govt. of Chhattisgarh



**“International Achievers Awards”**  
- Bangkok



**“Golden Eagle For Quality”**  
- Europe



# PARTNER OF SUCCESS

## REFINERIES



## POWER PLANTS



## DEFENCE & RAILWAYS



## CEMENT INDUSTRIES



## STEEL INDUSTRIES



## AIRPORTS



## OTHER OEMs



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## OUR PRESENCE

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*We all have a responsibility....  
to work together towards a better tomorrow,  
towards peace and conserving energy*