polybond

Rockwool Thermal Insulation Products

Conserve Energy...



...To Conserve Nature

Polybond Insulation Private Limited

an ISO 9001:2008 company

Insulation : General Information

Process

'polybond' Rockwool is made by melting basalt rocks blended with coke & limestone & converted them in to fibre. 'polybond' adopted highly advanced technology to melt raw diabase rock at high temperature to make the flowing lava spin at high speed using the latest spinning system to produce hair fine fibers which are bound together by spraying with a thermosetting resin binder. The fibers are spread on a conveyor in collection chamber using air suction to achieve uniform distribution of density throughout the surface of the end products. Impregnation of special additives to the bonded products provides water repellence property to the end products.

Properties

'polybond' Rockwool product properties

- Low Thermal Conductivity performance.
- High Temperature Resistance up to 750° C.
- Fire protective. Non-combustible.
- Moisture resistance, Water repellent.
- Non capillary & Non hygroscopic.
- Excellent Sound Absorption.
- Resistant to deformation.
- Corrosion resistant. Asbestos free.
- Prevents Thermal Shock.

Importance of Thermal Insulation

The need for efficient thermal insulation has become a paramount importance due to increasing energy costs at high operating temperatures used in various processes & industries. Prevention of heat losses by judicious application of thermal insulation is the simplest method of achieving substantial economy in energy consumption. Thermal insulation is, of course, equally relevant in Cryogenics (Cold) Applications. 'polybond' Rockwool products having complete thermal properties provides total solution for energy conservation.

The cost of fuels such as Petroleum, Power and Coke are increasing by the day. In the present industrial scenario, Heat Saved is Money Saved OR Energy Saved is Energy Produced. Conservation of Energy upto 20% can be achieved by proper 'polybond' insulation.

The Selection of Insulation Material

The final choice of a thermal insulation material is an engineering decision involving a number of factors, important among them are:

- The ambient & operating temperature of the system.
- Thermal conductivity of the insulation.
- Desired surface temperature.
- Resistance to heat & weather.
- Resistance to adverse atmospheric conditions.
- Ability to withstand vibration & noise.
- Ability to withstand accidental mechanical damage.
- Resistance to chemicals.
- Resistance to, and prevention, of fire.
- Jacketing the insulation.
- Total operational cost, including maintenance.

Benefits of Thermal Insulation

'polybond' Rockwool products have been proven highly effective for thermal insulation, fire protection and sound proofing which can be used in commercial and industrial applications. The key benefits of 'polybond' insulation are:

- Reduce heat losses and increase fuel savings.
- Personnel protection from fire.
- Creates comfortable working conditions for personnel.
- Reduce sound levels.
- Control temperature drop.
- Prevents condensation of ducts and pipes.

The Consensus Choice

'polybond' Rockwool Thermal Insulation products are manufactured keeping in mind all the above factors and are mostly preferred insulation products available in wide range. 'polybond'. These are used in commercial & residential buildings, auditoriums, industries like refineries, fertilizers, petrochemical, power plants, steel, sugar, chemical, automobile, heat exchanger, ESP and cold storage. 'polybond' Rockwool Building Roll is a newly developed product to extend services to pre-engineered building sector. The continuous business growth is a testimony of acceptance of 'polybond' Rockwool products by the industry in the domestic and global market as well.





Company

Committed to conserve acoustic and thermal energy.

Established in 1995, 'polybond' Insulation Private Limited specializes in the manufacture of Rockwool Thermal Insulation products like Lightly Resin Bonded Mattresses, Resin Bonded Slabs, Pre-formed Sectional Pipe Insulation, Superfine Loose Mineral Wool and Building Rolls.

Since its inception, 'polybond' has succeeded in carving a name for it in insulation products and has built a solid client base in the industry.

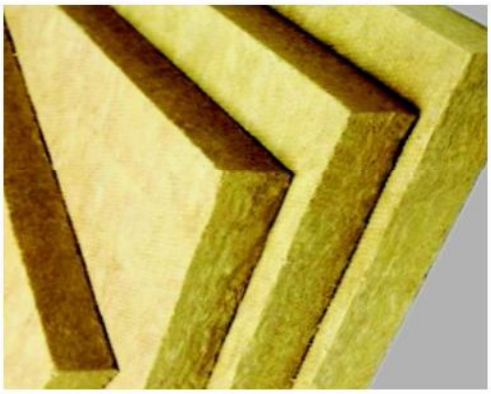
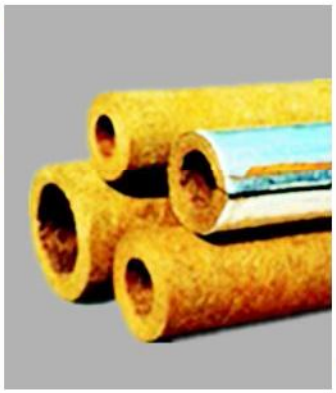
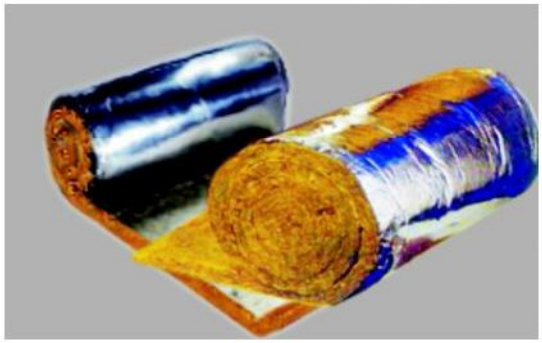
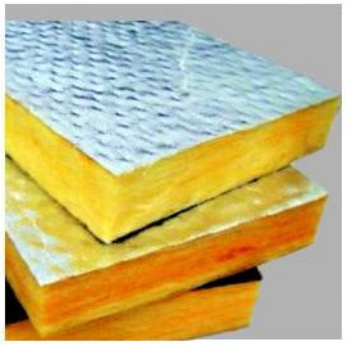
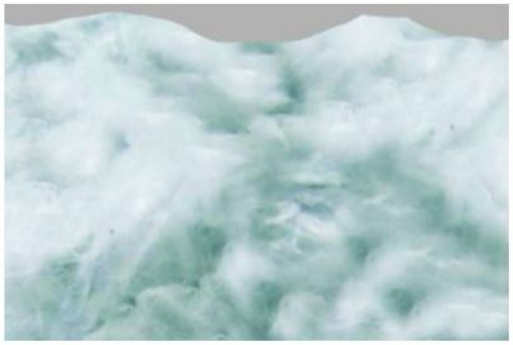
In 2008, as a part of its capacity expansion drive, we set up an additional manufacturing facility named Polybond Projects Private Limited in Rasmada, Durg, Chhattisgarh State, India.

In the year 2012 one more manufacturing facility named Polybond Rockfibers Private Ltd. added to the fleet. As of now the group is having largest manufacturing capacity in India with an annual production capacity of 32000 MT catering its products and services to various industrial sectors. The first manufacturing unit of the group is situated in the Industrial Area, Bhilai, the second unit being situated in the Industrial Growth Centre, Borai, Durg and the third manufacturing unit of the group is located at Bakal, Rajnandgaon in the state of Chhattisgarh, India. Centrally located in the country and well connected by road, air and rail transport, the group is able to serve clients of all corners of the country within stipulated timeframe in large volumes.

The units jointly cover a land area of 15 acres, approximately 40% of which is covered built up area. 'polybond' works units include process control sections, stores, raw material stock yard, fully equipped laboratories and warehouses.

'polybond' is an ISO 9001:2008 certified company and its workflow is defined as per ISO guidelines. The group's essential manufacturing practices aimed at customer satisfaction which include Raw Material Procurement and Testing as per IS Norms, stringent Quality Control checks in in-house Laboratories and Customer Feedback monitored by entire team.

Polybond Insulation Private Ltd. is a registered member of the Confederation of Indian Industries.

Range of Products

'polybond' Lightly Resin Bonded Mattresses.

'polybond' Rockwool Resin Bonded Slabs.

'polybond' Rockwool Sectional Pipe Insulation.

'polybond' Rockwool Building Rolls.

'polybond' Superfine Loose Mineral Wool.

'polybond' Granulated Wool.







Apart from conventional use of rockwool products, the scrap material can be used for sustainable urban agriculture. It can be very well used for making nursery beds , plantations, irrigation and much more. The fibrous structure of the rockwool provides excellent water holding property for longer duration. And thus provides double benefit to the economy as well as environment.





'polybond' Lightly Resin Bonded Mattresses

'polybond' Lightly Resin Bonded Mattresses are made of fine fibers spun from selected rocks melted at high temperature and bonded with a thermosetting resin. The uniform distribution of fibers, the fine diameter of fiber and flexibility are the unique characteristics of 'polybond' Rockwool Lightly Resin Bonded Mattresses. The properties are controlled to form mattresses of predetermined density and thickness. 'polybond' Rockwool Mattress conforms to IS:8183, ASTM C 592 available with or without facings. These mattresses can be faced on one side or both sides to form a firm and flexible multipurpose insulating media. The facings may be Aluminium Foil or Galvanised wire mesh or Stainless Steel wire mesh of different specifications.

'polybond' Lightly Resin Bonded mattresses provide excellent stability, due to uniform thickness and density, resulting in prevention of heat losses.

Applications

'polybond' Rockwool LRB Mattresses are recommended for use in the thermal insulation of large vessels, boilers, machinery, equipments, ducts, flanges, valves and plates operationg at high temperatures. These mattresses are exclusively suited for wrapping curved surfaces or for cutting to fit over irregular shapes.

Standard Availability

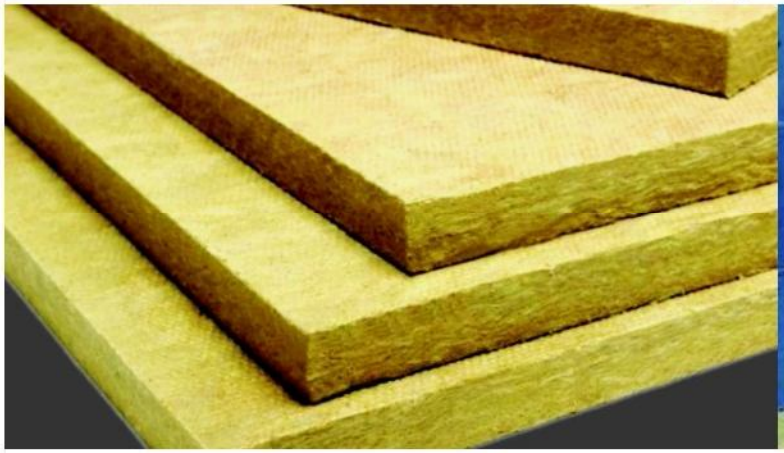
'polybond' Rockwool LRB Mattresses are available in densities of 80 to 150 kg/m^2 in the size of 1640 x 1220mm and thicknesses are available from 25mm to 100mm. Other sizes are available on request.

Specifications

As per IS 8183, ASTM C 592 or equivalent.

Properties

- **Thermal Conductivity** : 'polybond' Lightly Resin Bonded Mattresses have got excellent low thermal conductivity of 0.034 W/mK at 50°C mean temperature.
- **Fire Resistance** : 'polybond' Lightly Resin Bonded Mattresses are non combustible when tested as per IS:3144:1992 clause 16 and Class '0' to the building regulations.
- **Acoustical Properties** : 'polybond' LRB Mattresses are suitable for acoustical treatment in industrial and building applications.
- **Compatibility** : These mattresses are compatible with all form of material with which they are likely to come in contact in industrial and building applications.
- **Moisture Resistance** : 'polybond' LRB Mattresses are non-hygroscopic, non-capillary. They does not absorb moisture from atmosphere. Water repellent grade products available on request.
- **Compressive Strength** : The mattresses are resistant to compression and excellent recovery after compression.
- **Chemical Neutrality** : Chemical neutral with a pH value of 7. The mattresses will neither cause nor promote corrosion.
- **Biological Properties** : 'polybond' LRB Mattresses are Rot proof, will not sustain vermin and will not encourage growth of bacteria, mould or fungi.





'polybond' Rockwool Resin Bonded Slabs

'polybond' Rockwool Resin Bonded Slabs are made of fine fibers spun from selected rocks melted at high temperature & bonded with a thermosetting resin. The uniformity of fiber distribution, the diameter, the lay pattern & bulk density with excellent load bearing characteristics are unique features of 'polybond' Rockwool Resin Bonded Slabs.

'polybond' Rockwool Resin Bonded Slabs provide the best combination of thermal insulation, fire protection & sound absorption properties conforming to standards IS: 8183:93, ASTM C 612 and BS-3958B-5. These are a very versatile material, easy to transport and easy to cut, fit & handle. These are designed for thermal & acoustic insulation of flat surfaces or slightly curved surfaces operating at temperatures up to 750°C. The Slabs can be used in cold insulation up to -50°C temperature.

Applications

'polybond' Rockwool Resin Bonded Slabs are designed for a wide range of applications at both high & low service temperatures. These can be used on both flat & slightly uneven surfaces for thermal & acoustical insulation of ductings, ovens, vessels, tanks, cavity walls, curtain walls, sandwich panels and industrial equipments. The Slabs can be used for insulation of flat surfaces of furnaces, ship decks and boilers. 'polybond' Resin Bonded Slabs can also be used for fire protection and personnel protection.

Standard Availability

'polybond' Rockwool Resin Bonded Slabs available in wide range of densities from 40 kg/m^2 to 150 kg/m^2, in standard size of 1000 mm x 500mm. The thicknesses are available from 25 mm to 100mm. Other sizes are available on request.

Properties

- **Service Temperature** : The slabs can withstand temperature up to 750°C. The slabs can also be used in cold conditions up to -50°C temperature.
- **Fire Resistance** : 'polybond' Rockwool Resin Bonded Slabs are non-combustible, do not generate smoke and leave melt drops.
- **Acoustical Properties** : 'polybond' Rockwool Resin Bonded Slabs has excellent sound absorption properties.
- **Compatibility** : Compatible with all kinds of material with which they are likely to come in contact in building and industrial applications.
- **Moisture Resistance** : 'polybond' Rockwool Resin Bonded Slabs are non-hygroscopic, non-capillary, does not absorb moisture from air. Water repellent grade slabs are also available on request.
- **Thermal Conductivity** : 'polybond' Rockwool LRB Mattresses has got excellent low thermal conductivity of 0.04 W/mK at 50°C mean temperature.
- **Biological Properties** : The slabs are asbestos free and shot content is also very low. The products are rot-proof, will not sustain vermin & will not encourage growth of bacteria, mould or fungi.
- **Facings** : 'polybond' Rockwool Resin Bonded Slabs are available with one side facings such as Aluminium Foil, Black or white veil or without any facings.



'polybond' Rockwool Sectional Pipe Insulation

'polybond' Pre-formed Sectional Pipe Insulation is a value added product manufactured with chemically coated mineral fibers in specified sizes conforms to IS:9842, ASTM C 547 and equivalent BS-3958-4.

The pre-fabricated Pipe Sections are designed for thermo-acoustic insulation and fire protection of pipe lines operating at temperatures up to 750° 'C'.

'polybond' Rockwool Pipe Sections are non-combustible, easy to cut, fit, handle and has high levels of thermal efficiency and strength. Each section is split and hinged for easy , snap-on application.

Designed for tough thermal and acoustic insulation pipe works its combination of density, strength and excellent thermal conductivity at high temperatures offer efficient insulation.

Applications

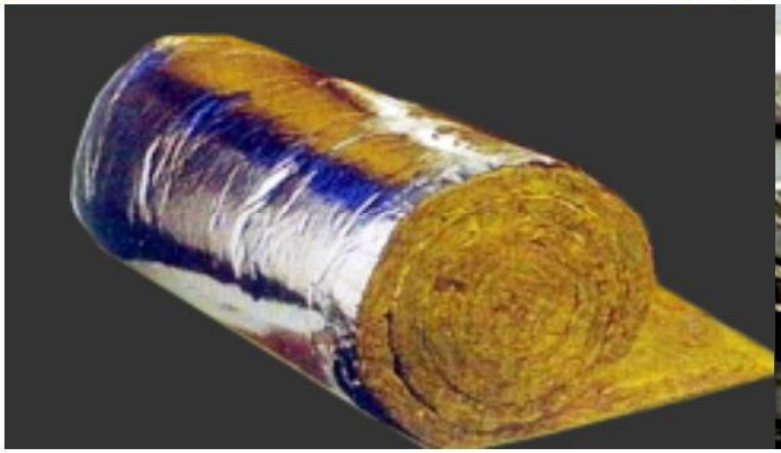
Pre-formed Pipe Sections are highly recommended for industrial steam and process pipe lines in oil refineries, chemical plants and power projects.

Standard Availability

'polybond' Rockwool Pipe Sections are available in the density ranging from 128 kg/m^2 to 200 kg/m^2, thicknesses from 25mm to 100mm and sizes from NB ¼" (15mm) to 14" NB (350mm) packed in 5 ply cartoon boxes. The Pipe Sections are available with facing like Aluminium Foil, Black veil or white Fiber Glass Tissue or without any facings.

Properties

- **Service Temperature** : 'polybond' Rockwool Pipe Sections can withstand temperature from -50°C to 750°C.
- **Fire Resistance** : The 'polybond' Rockwool Pipe Sections are non-combustible and non-spreading.
- **Acoustical Properties** : 'polybond' Rockwool Pipe Sections has got excellent sound absorption properties and most suitable for acoustical treatment.
- **Corrosion Free** : As the 'polybond' Rockwool Pipe Sections are made of non-alkaline materials, they do not react chemically and consequently do not promote corrosion.
- **Thermal Conductivity** : 'polybond' Rockwool Pipe Section shows remarkable low thermal conductivity values of 0.034W/m²K at 25°C mean temperature. Insulation thicknesses should be set as per specification to meet the desired surface temperatures.
- **Biological Properties** : 'polybond' Rockwool Pipe Sections are asbestos free, odourless, rot proof, non hygroscopic, does not sustain vermin and will not encourage the growth of fungi, mould and bacteria.





'polybond' Rockwool Building Rolls

'polybond' Rockwool Building Rolls are made of bonded fiber insulation having maximum resistance to the passage of heat. The 'polybond' Rockwool Building Rolls are made of fine fibers spun from molten rocks of selected quality and chemically coated with thermosetting resin binders. 'polybond' Rockwool Building Rolls consist of triple benefits like thermal insulation, fire protection and acoustical properties. 'polybond' Rockwool Building Rolls can also be used for personnel protection which do not generate smoke and melt drops.

'polybond' Building Rolls are low density insulation material made of non-combustible rockwool fibers bonded with thermosetting resin binders. The product is easy and safe to use, cut & install. 'polybond' Building Rolls are machine made factory laminated with reinforced aluminium foil or White Fiber Glass Tissue or Black Fiber Glass Tissue or Craft Paper on one side. 'polybond' Building Rolls are also available in water repellent grade.

Applications

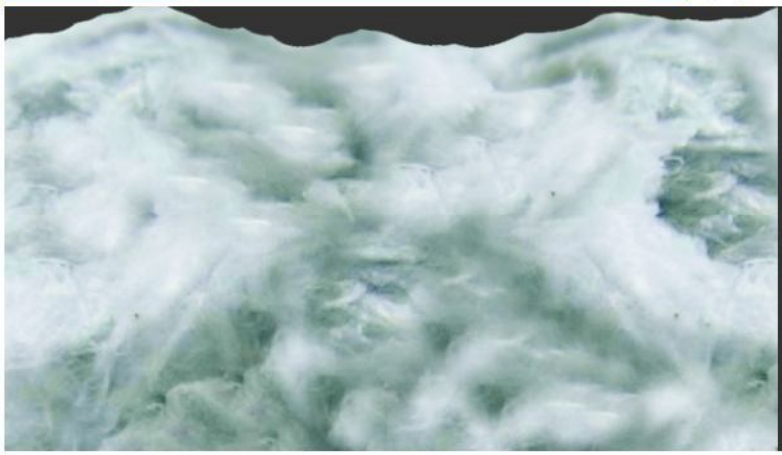
'polybond' Building Rolls are developed for the insulation of roofs, walls and floors. These temperature resistant rolls are best suitable for use in pre-engineered buildings, pre-fabricated houses, poultry farms, airports, auditoriums, AC ducting etc. These are also recommended for thermal & acoustic insulation in false ceilings.

Standard Availability

'polybond' Rockwool Resin Bonded Slabs available in wide range of densities from 48kg/m^2 & 64kg/m^2, in standard size of 500mm or 1100mm (width) x 4000mm to 6000mm length. The thicknesses are available from 25 mm to 100mm. Other sizes are available on request. Rolls are packed in HDPE bags.

Properties

- **Service Temperature** : 'polybond' Building Rolls can withstand temperatures up to 750oC and has a melting point of 1000°C.
- **Fire Resistance** : 'polybond' Building Rolls are non-combustible when tested to IS:8183:93.
- **Acoustical Properties** : 'polybond' Building Rolls has got excellent sound absorption properties.
- **Compatibility** : Compatible with all kinds of material with which they are likely to come in contact in building and industrial applications.
- **Moisture Resistance** : 'polybond' Building Rolls are also available with water repellent property which do not absorb water by capillary action.
- **Thermal Conductivity** : 'polybond' Building Rolls have excellent thermal conductivity values when tested in accordance with IS: 8183:93.
- **Biological Properties** : 'polybond' Rockwool Thermal Insulation products do not contain or generate gases which are harmful to the environment, such as CFC'S , HCFC'S, HFC'S, Pentane or any gases that have Ozone depletion potential (ODP) or Global warming potential (GWP).
- **Facings** : 'polybond' Building Rolls are one side faced with reinforced Aluminium foil or White Fiber Glass Tissue or Black Fiber Glass Tissue or Plain Craft Paper.





'polybond' Superfine Loose Mineral & Granulated Wool

'polybond' Superfine Loose Mineral Wool is a collection of fine fibers drawn from molten selected basalt rocks. The Loose Mineral Wool is an ideal material for most insulation applications because of its favourable handling and application characteristics. It is fire proof, dirt proof and moisture resistant. Chemically it neither reacts nor accelerates corrosion. It is durable, odourless, easy to handle and store.

'polybond' Superfine Loose Mineral Wool and Granulated Wool conforms to IS:3677. The Loose Mineral Wool and Granulated Wool possesses low thermal conductivity on account of enormous minute air cells created by the fine fibre and can be used in a wide range of temperatures of -50°C to 750°C. 'polybond' Loose Mineral Wool is of oil free and has prudent low thermal conductivity properties.

Applications

'polybond' Superfine Loose Mineral Wool and Granulated Wool are used for general purpose insulation, expansion relief packing, cavities of brickwork in furnaces, ovens and many other industrial equipments. It is also used in the cavity packing in refrigerated cargoes, oxygen plants, valve boxes, automobile silencers, cold storages, turbine roof insulation, brake liners and ships. It is mostly suitable for application where preformed insulation material is difficult to apply.

Standard Availability

'polybond' Superfine Loose Mineral Wool is available in HDPE bags of 40 kg each and Granulated Wool is available in HDPE bags of 25 kg each.

Properties

- Service Temperature : 'polybond' Superfine Loose Wool has the maximum service temperature of 750° C.
- Fire Resistance : 'polybond' Superfine Loose Mineral Wool and Granulated Wool are non combustible.
- Acoustical Properties : 'polybond' Superfine Loose Mineral Wool products has excellent sound absorption properties.
- Compatibility : 'polybond' Superfine Loose Mineral Wool are compatible with all forms of material with which they likely to come in contact in normal industrial and building applications.
- Moisture Resistance : 'polybond' Superfine Loose Mineral Wool are oil free, non-hygroscopic, non-capillary and does not absorb moisture from air.
- Corrosion Free : 'polybond' Superfine Loose Mineral Wool is chemically neutral, contains low chloride and will neither cause nor promote corrosion.
- Biological Properties : 'polybond' Superfine Loose Mineral Wool is rot proof, will not sustain vermin, will not encourage growth of bacteria, mould or fungi.



Quality

Do it right. First time. Every time.

Polybond is committed to achieving excellence at all levels of activities, leading to continual improvement of product, processes, cost effectiveness and productivity for achieving total customer satisfaction.

Polybond shall satisfy its customers by meeting their requirements and also meeting National Standards.

The Polybond team shall achieve continual improvement of Quality Management System through healthy work environment.

Polybond commits itself as an organization and as individuals to Do It Right First Time, Every Time.

Polybond Insulation is an ISO certified company and manufactures thermal insulation products conforming to several national and international standards. As such, quality control is an integral part of every aspect of its operations, from raw material procurement to manufacturing to packing and pre-dispatch storage.

Polybond is equipped with comprehensive in-house testing facilities, and of direct relevance to its clients is the fact that Polybond products are tested on various parameters, such as:

- Bulk Density
- Shot Content
- Moisture Content
- Alkalinity
- Sulphur Content
- Chloride Content
- Post Compression Recovery
- Incombustibility
- Moisture Absorption
- Resistance to Vibration Settlement
- Resistance to Jolting Settlement
- Heat Resistance
- Thermal Conductivity [out-sourced]

Clients

We have delivered products. But, all along the way, we have always tried to deliver satisfaction.



Polybond Insulation Private Limited

an ISO 9001:2008 company



Works I
37, Light Industrial Area,
Bhilai 490026, Chhattisgarh, India.

Works II
41-44, Zone C, Industrial Growth Centre,
Borai, Durg 491002, Chhattisgarh, India.

Works III
Village Bakal, Tehsil Dongargaon,
Rajnandgaon, Chhattisgarh, India.

Administration & Sales Office
Block 56A, Plot 17, Nehru Nagar West,
Bhilai 490020, Chhattisgarh, India.

Telephone
91 788 4010525
91 788 3295106
91 788 2293392
Fax
91 788 2211737
E-Mail
info@polybond.co.in
sales@polybond.co.in

Branches:

Bhilai | Hyderabad | Pune | Ahemadabad | New Delhi | Chennai

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www.polybond.co.in