



Relemac India

Drilling fluids and ground engineering



Helping Nations for Making A Strong Foundations

About Us

Based in Delhi, Relemac India is a reputable name engaged as a manufacturer, exporter, and domestic supplier and stockiest of wide variety of mineral powders, Drilling fluids and polymers and other consumables. We commenced our operations in the year 1984 with the view to serve diverse industries like construction, steel, copper, glass, fertilizer, construction and power industry with our Products.

Our range of mineral powders encompasses Bentonite powder, Drilling polymer, various types of Drilling fluids, starch, and soil stabilizer fluids, Limestone Powder, Hydrated Lime Powder, White Shale Powder, China Clay, and Lime Powder. The range is widely appreciated in the market for its purity and accuracy in composition.

Relemac India sales and service engineers average over 20 years experience in several facets of the drilling industry. These individuals bring a comprehensive knowledge of products, drilling methods, regulations and equipment to help customers solve the toughest drilling problems facing your industry. Relemac India personnel can help in all areas of the drilling project. From product selection through well completion, Relemac India representatives are known for being there for the customer.

Relemac group is one of the largest engaged in manufacturing, supplying, exporting and importing of different products.

Connect with us.:



Relemac India



RELEMAC DRILLING FLUIDS
AND GROUND ENGINEERING




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 [Relemac drilling fluids](https://www.facebook.com/Relemacdrillingfluids)



PRODUCT RANGE

We offer a comprehensive range of products which can be broadly categorized into

FOLLOWING CATEGORIES:

- ★ **Drilling Polymers and Fluids**
- ★ **Mud Chemicals**
- ★ **Completion fluids**
- ★ **Specialty drilling chemicals**
- ★ **Fluid loss control agent**
- ★ **Soil stabilizer products**
- ★ **Minerals**
- ★ **Bentonite powder**
- ★ **Calcium Bentonite powder**
- ★ **Hydrated Lime**
- ★ **Lime stone powder**
- ★ **Cleaning agents**



Relemac polymer viscocimud

CHEMICAL -PHYSICAL CHARACTERISTICS

Physical state	white Granules powder
Charge	Anionic
Density	0.980 - 1.060 gr/crn3

PROPERTIES - APPLICATIONS

Relemac VISCOMUD are synthetic organic Polymers of high molecular weight and varying Anionicity degree supplied as rapidly hydrating emulsions.

Relemac VISCOMUD are designed for use in water based fluid additives within the Oil & Gas industry. They can be used in a variety of well types such as oil, gas, water and injection Wells. Relemac VISCOMUD enhance the removal of drilled solids, provides excellent friction Reduction and foam stabilization in air drilling projects.

The main function of Relemac VISCOMUD included providing Hydrostatic pressure to prevent formation Fluids from entering into the well bore, keeping the drill bit cool and clean during drilling, carrying out drill cutting, and suspending the drill cutting while drilling is paused and when the drilling assembly is brought in and out the hole, the drilling fluids used for a particular job is selected to avoid formation damage and to limit corrosion..

PRODUCT BENEFITS

- Highly effective friction reducer and viscosifier
- Excellent foam stabilizer for air drilling
- Highly effective shale and hole stabilizer
- Rapid hydration properties



BENTONITE POWDER

Bentonite Powder is a clay mineral which is largely composed of Montmorillonite, which is mainly a hydrous aluminum silicate. It is highly colloidal and plastic clay with the unique characteristic of swelling to several times its original volume when placed in water. Mining then begins by removing the overburden from the mineral deposit with the use of large earth movers. The overburden is then stockpiled nearby for reclamation after the Bentonite has been removed from the bed. When contact with the bed is made, extreme care is taken to avoid contaminating the mineral deposit with the overburden, thus insuring the highest quality raw material. Care must also be taken to conserve as much Sodium Bentonite as possible when trimming the overburden from the Bentonite. When all the Bentonite has been removed from the bed, reclamation can begin. The surface of the mine site must be returned to equal or superior condition. The habitat for plant and animal is very important as are all other environmental considerations.

PROPERTIES

Extracted Bentonite is distinctly solid, even with a moisture content of approximately 30%.

Bentonite is used as a bonding material in the preparation of molding sand for the production of iron, steel and non-ferrous casting.

Used as a binding agent in the production of iron ore pellets. Through this process, iron ore fines are converted into spherical pellets, suitable as feed material in blast furnaces for pig iron production, or in the production of direct reduction iron (DRI). Acts as a good lubricating agent.

Excellent absorption and adsorption properties make it an ideal option for water purification.



Chemical formula	Al ₂ O ₃ 4SiO ₂ H ₂ O
Chemical composition (Typical)	
Titanium Oxide TiO ₂	01.25
Ferric Oxide Fe ₂ O ₃	10.91
Silica SiO ₂	54.26
Aluminum Al ₂ O ₃	18.34
Physical Characteristics (Typical)	
Specific Gravity	2.4
pH (OF 10% Aqueous Solution)	8 to 8.8
Bulk Density (tapped) qms / cc	0.6

Searching for superb quality Bentonite Powder? We Relemac India are the one-stop destination for you. Bentonite is widely reckoned as Montmorillonite is a perfect binding agent that is easily found in the natural state. It is mined in the Kutch district of Gujarat and Barmar district of Rajasthan India. We use three roller mills as well as pulverize unit to process Bentonite that is utilized in number of applications. Bentonite Clay Powder is available in different quantities and packing suiting to the needs of our customers. We are considered as one of the most prominent Bentonite Mineral Powder Manufacturers and Suppliers from India.



RELEMAC RI 600

RAPID HYDRATION POLYMER

CHEMICAL -PHYSICAL CHARACTERISTICS

Physical state	white emulsion
Charge	Anionic
Density	0.980 - 1.060 gr/cm ³

PROPERTIES -APPLICATIONS

Relemac RI 600 are synthetic organic Polymers of high molecular weight and varying Anionicity degree supplied as rapidly hydrating emulsions.

Relemac RI 600 are designed for use in water based fluid additives within the Oil & Gas industry. They can be used in a variety of well types such as oil, gas, water and injection Wells. Relemac RI 600 enhance the removal of drilled solids, provides excellent friction Reduction and foam stabilization in air drilling projects. Relemac RI 600 is a family of products designed to provide exceptional friction reduction Performance for a range of well stimulation / fracturing activities Relemac RI 600 provides exceptional performance in freshwater / low brine and extremely high brine fluid Conditions.

- Product Benefits
- Highly effective friction reducer and viscosifier
- Excellent foam stabilizer for air drilling
- Highly effective shale and hole stabilizer
- Rapid hydration properties

FEEDING -DOSAGE.

Relemac RI 600 dosage will depend on the system operating conditions, application Methods and specific viscosity requirements. We Relemac India strongly recommend to use product as per guidance of Relemac India Ground engineer For guidance, the following dosages can be considered:

Friction Reduction:	0.2 - 1.0 gallon per every 1000gallons of fluid
Viscosification:	1.5 - 2.0 gallons per 1000gallons of fluid

It is very important that the flocculants is added at a point of turbulence to insure proper mixing.

RELEMAC RI 60B

HIGHLY CATIONIC ORGANIC LIQUID COAGULANT CHEMICAL -PHYSICAL CHARACTERISTICS

Physical state	yellow liquid
Charge	cationic
Density	1.00 - 1.100 gr/mL
pH	5.0 - 7.0

PROPERTIES -APPLICATIONS

Relemac RI 60 B is a polymer of medium molecular weight, fully water-soluble. Thanks to its high content of active matter it is suitable for the treatment of primary waters as well as of domestic or industrial waste waters, where it can either replace completely or partially the inorganic coagulants used traditionally. Anyhow, it can be used in filtration, flotation and sedimentation systems, in the treatment of oily residues from waters containing organic matter, cellulose, Bentonite, etc . This coagulant is versatile, effective at low dosage it is practically unaffected by

The pH and produces a compact sludge, easy to Dehydrate.

We Relemac India strongly recommend to use product as per guidance of Relemac India Ground engineers Although We suggest using the following dosages:

1 -;- 40 ppm when used as primary coagulant,

0.1 -;- 10 ppm when used as coagulant adjuvant

0.2 and 0.5 -;- 20 ppm when used as filtration adjuvant.



STANDARD OPERATION PROCEDURES FOR DRILLING FLUID

1) Material Required for Best Performance of RELEMAC INDIA Polymer:

- a) Polymer Drilling Fluid, RI 600, RI 60 B
- b) Mixing Tanks minimum capacity of 25 m³ each.
- c) Storage Tanks minimum capacity of 25 m³ each.
- d) Sedimentation Tank if needed with capacity of 25 m³ each.
- e) Heavy Duty air compressor for good agitation of polymer slurry during mixing.
- f) Positive displacement Pump for sending and retrieval of Polymer slurry.
- g) Sodium Hydroxide (NaOH) or Potassium Hydroxide (KOH) for pH correction.
- h) Sodium Silicate and Sodium Aluminates to prevent fluid loss and continuous collapse if required.
- i) Testing kit (Mud balance, Marsh cone API, Sand Content testing)
- j) Water Supply :An appropriate supply of clean water must be available all time

2) pH Correction :

The pH of the drilling slurry can affect performance of the drilling slurry. Slurry will have maximum hydration where the pH is between 11 and 12.5 Sodium Hydroxide (NaOH) or Potassium Hydroxide (KOH) with 50% Concentration should be mixed with the ratio of 1L/m³ to raise the pH up to 12.50

3) Mixing and hydration of Polymer Slurry

Appropriate water supply should be assured all the times in working site, in case of Insufficient water supply additional storage tanks dedicated to water storage Should be available in the working site.

Excavation should be done with clean drilling fluid, slurry should be prepared with The ratio of Kg/m³ for the fresh mix, under constant air agitation provided by air Compressor and circulation of slurry should be done from one end to another in the Mixing tank by means of positive displacement Pump, a metallic plate should be Welded directly underneath the flow of water directly into the mixing tank with an Inclination of 45 degree in order to get faster hydration

After the fluid is mixed, sufficient time of minimum 2 hours must be allowed to Elapse to insure complete hydration of the Polymer prior to it being circulated into The Pile Bore or Diaphragm wall Panel.

In case of brackish or salt water pre treatment of water should be done as per

Relemac India recommends that wherever possible the mixing should be preferably done In a proper mixing tank. However, depending on general circumstances such as, lack of space or soil conditions, it may be necessary to add polymer directly at excavation. The application of this method has several advantage like increased slurry viscosity and an overall stabilization of the formation helping to prevent fluid loss and improving slurry's performances



The slurry to Pile Bore or Diaphragm wall panel, after excavation and after placing Reinforcement cage (AS per API 13 B)

Parameter	Fresh Mix	Re-cycled	Prior to concrete / cage lowering	Apparatus to examine sample
Viscosity	>60 seconds	>60 seconds	>50 seconds	Marsh cone(API)
pH	11-12.5	11-12.5	11-12.5	pH strips
Density	1.000-1.02g/cc	<1.08 g/cc	<1.05 g/cc	Mud Balance
Sand Content	Nil	<3%	<2%	Sand content test kit

4.1. Storage tanks or silos are used to store slurry prepared for excavation as well as Water storage.

4.2. Sedimentation tank volume should be calculated in order for sedimentation to Occur effectively, sedimentation tank should be open from the top with Deflecting plates and inlet and outlet valves should be placed on the top of the Tank.

4.3 GRABS For fluid loss optimization of the slurry we strongly recommend the grab to Have holes to allow the excess of slurry flow back to the excavation upon retrieval from Excavation

5) Positive Head Pressure

A minimum height of 3 meters of slurry column above the water table should be Maintained in order to get positive differential head pressure, plans for design and Building of working platform should take this factor into consideration.

6) Drilling Tools

Drilling tool must have drainage holes of about 100 mm to retrieve slurry when Extracted from excavation to prevent fluid loss due to tool action. Drilling tools must have inflow vents to minimize suction effect.

7) Sampling of Polymer Slurry

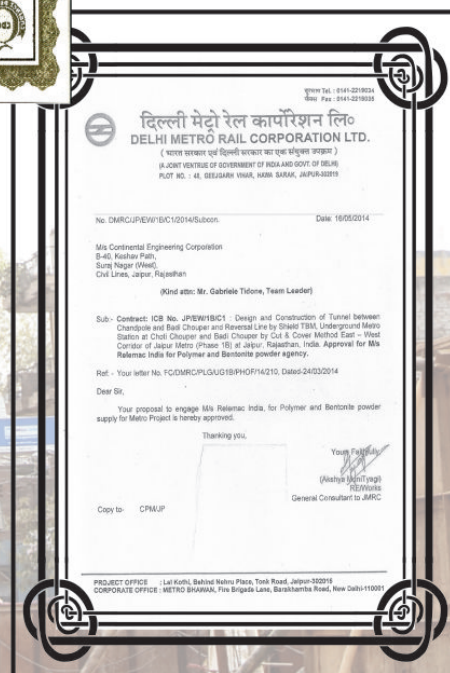
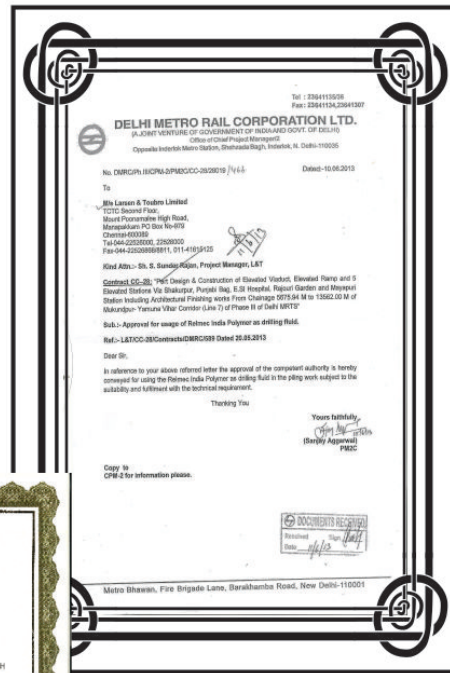
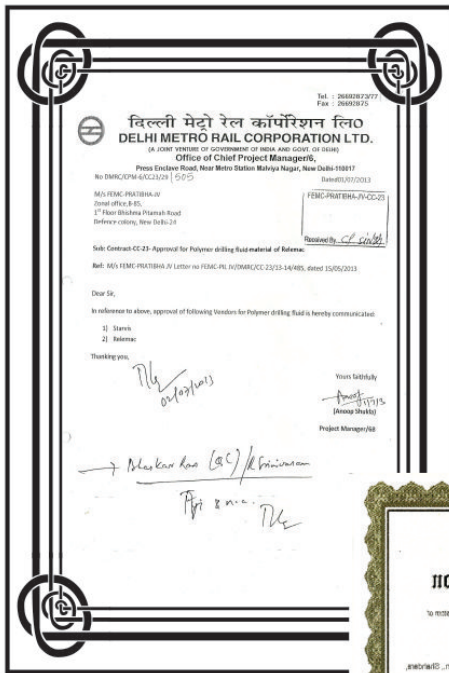
A Bottom sampler must be used to retrieve slurry sample from any point of slurry Column. Volume of each sample should be sufficient to perform viscosity, density And sand content test. The sampler shell retain the fluid preventing its Contamination by solid entrainment whilst being extracted from the slurry column. Samples should be taken during excavation after completion of excavation and After placing rebar cage in the Pile bore or Diaphragm wall panel.

8) Treatment of Polymer Slurry and fluid disposal

For treatment of polymer slurry calculated volume of water or Hydrochloric Acid (HCL 30% conc. in liquid form) is used as pH corrector.

Calcium hypochlorite or Sodium hypochlorite (65-70% conc. Granular) in Calculated volume is required for viscosity break down that turns polymer in to a Residual water, once treated slurry can be dispose to sewer system, direct dispose to the environment, may be reused for slurry mixing or it can be use to suppress dust in tracks or roads.







OUR SERVICES:

Relemac india structures its service model around the concept of total immersion in client projects. Our technical services group assures the success of our customers' projects through innovative, experienced and vigorous planning and implementation of **drilling fluid systems**.

Tech group members coordinate a wide range of project activities, focusing upon client objectives, with emphasis placed upon specialized engineering functions while interacting daily with operator staffs both at the well site and in the office.

Our technical and engineering staff ranks among the most experienced and thoroughly trained in the drilling fluids business. Their experience and dedication to customer service have provided a platform for growth based upon customer satisfaction. Of the company's technical service representatives, 75% have over 15 years of experience; 20% have 3-8 years. Every day, these seasoned professionals first validate and then implement action plans to address the next challenge each project presents to our customers.

RELEMAC INDIA provides its clients with a methodology with proven international success composed by several client assistance oriented programs.

With a wide experience developing new technologies in the field of soil stabilization RELEMAC INDIA provides its clients with a methodology with proven international success composed by several client assistance oriented programs.

The CORE methodology, Client Oriented Rapid Results, was conceived to ensure the best possible application of the different technologies and products implemented by RELEMAC INDIA with a proven success rate.

PROJECT START-UP

The client assistance programs were developed to meet the client's needs, always taking into consideration each project's specific characteristics in order to find the most adequate solutions and maximize performances, always ensuring the top quality technical backup our customers are used to.

ON SITE ASSISTANCE

With a wide international experience, our technical team will ensure that our client's goal and results are achieved, solving problems and working in partnership with our client's site crew.

CAP - CLIENT ASSISTANCE PROGRAM

When requested this service has several stages:

Previous study of project based on data supplied by the client.

Careful planning in close partnership with the clients technical team for the Setup of the slurry plant and other equipment, prior to project startup.

Optimized application of the different products.

ON SITE TECHNICAL BACKUP.

Continuous gathering and crossing of all the data concerning the project maximizes product usage and consumption. When requested, a project final report will be provided.

Slurry treatment for disposal at the end of the project. (Upon request when previously accorded).

The Program of Assistance to the customer aims at the integral follow up of project since the start to its conclusion. This service is provided by contract of a predetermined number of days or weeks of assistance by the customer and distributed or not, throughout project duration and always adjusted to the customer's needs.

OUR ADVANTAGE

Less equipment needed

When compared to Bentonite system, the Relemac india can operate practically without any special equipment dedicated to slurry operations.

Reduced on site stock (compared with Bentonite)

In most cases, the proportion may be 50 times less.



Reduced personnel It is not necessary to dedicate a person to the slurry plant fulltime, allowing the worker to be available to perform other tasks.

The Relemac india is environmentally safe and friendly.

The Relemac india was designed having the environment as a major concern; after treated, the slurry can be disposed of to sewer systems, water streams etc.

Clean job sites

Spoils from the excavations are dry. The slurry is confined to where is needed.



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Dealers:

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