

Rheogel® LX

Bentonite Microparticle

Rheogel® LX is a sodium modified bentonite in pellet form.



Chemical:

Sodium montmorillonite form of the smectite trioctahedral swelling clays.

Description

LX pellets is a specially formulated sodium bentonite clay that has been screened for sizing and grading purposes. This material is used to seal and plug boreholes

LX pellets are available in two size grades:

LX pellets 3/8" (100% passing 3/8" screen, all particles recollected on 1/4" screen)

LX pellets 3/4" (100% passing 3/4" screen, all particles recollected on 3/8" screen)

Typical chemical analysis (dry basis):

Silica (total)	52.4%
Crystalline Silica	<5%
Aluminium Oxide	15.6%
Ferric Oxide	12.1%
Calcium Oxide	1.8%
Magnesium Oxide	2.7%
Sodium Oxide	2.2%

Typical properties:

Nominal pellet size

10mm sieve (ISO 787/7) 5%

Rheology (API methods):

• Swelling power (BP)	1400%
• Gel formation (BP)	99.5%
To give apparent viscosity of 15 cP:	6.5 g/100ml
At apparent viscosity of 15 cps:	Yield 90 bbls/ton 16 kL/tonne

Gel strength:

• Initial gel:	15 lb/100ft ³ 7 g/100ml
• 10 min gel:	12 g/100ml
Moisture @ (80°C), when packed	10%
Loss on ignition (1000°C)	9.2%
Loose bulk density (ISO 787/11)	1.1 g/ml
Packed bulk density (ISO 787/11)	1.1 g/ml
Specific Gravity	2.3 g/ml

Applications:

Drilling, grouting, civil and geo-technical.

- Seal lost exchange zones
- Seal around conductor pipes
- Plug decommissioned holes
- Stemming shotholes
- Highly recommended for use in grouting annulus in all types of wells, predominantly environmental monitoring wells
- Shut off artesian flow
- Seal above gravel parcels

Advantages:

- In-situ swelling to ensure exceptional casing equilibrium
- Simple application
- No mixing required
- Inhibits vertical movements of liquids in the hole between permeable zones
- Allows hole entry
- High swelling potential
- Inhibits entry of surface water into boreholes
- All fines screened before application (no fines present)

Recommended use:

- 1 Adequate annular space should be present to allow for the placement of LX pellets into the area of concern without bridging. It is recommended that a minimum annular space of approximately 50 mm (2 inches) on either side of the outside dimension of the casing be present.
- 2 The subsurface environment that the respective bentonite sealing material is to be placed into should always be taken into consideration when selecting the appropriate material to compose the well seal or abandonment material. In the event that questions regarding subsurface environments arise it is always best to consult your local engineer to determine if the LX pellets of choice is appropriate for the given conditions.

Application and storage:

Recommended storage periods:

- Dry bentonite up to 5 years
- Storage of bentonite should be in a cool, dry place.

Production plant:

17-35 Bridge Street, New Zealand.

Shipping & handling:

Rheogel® LX is supplied in one tonne lots, palletized and shrink wrapped in either 1 tonne bulk or 25kg polypropylene bags.

In accordance with good industrial practice, handle with care and prevent contamination of the environment. Avoid dust formation and ignition sources. Dry bentonite spills should be swept or vacuumed. Bentonite slurry spills should be contained with an inert material and disposed of in a proper manner.

FOR INDUSTRIAL USE ONLY.

Health & safety:

This product has a low order of toxicity, and no special precautions are necessary in handling other than standard industrial protection. Detailed information on the product(s) described in this leaflet can be found in our relevant Health and Safety Information (Material Safety Data Sheet).

Registration:

Rheogel®.

Important:

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