



CASING SEAL™

Sealing and Plugging Material

Description

CASING SEAL™ sealing and plugging material is a mixture of random sized particles of a utility grade, granular Wyoming sodium bentonite, a naturally occurring, non-treated swellable clay. Because of its high swelling capacity, CASING SEAL bentonite is an effective sealing material for sealing a leaking pond, and for use as a clay liner.

Applications/Functions

The use of CASING SEAL bentonite promotes the following:

- Seal leaking ponds and dams
- Seal earthen structures
- Prepare a clay liner under storage tanks and landfills
- Seal casing in cable tool and in air drill casing hammer operations
- Lubricate casing while being driven
- Plug abandoned holes

Advantages

- Effective in sealing operations
- Simple to apply
- Flexible seal providing low permeability that prevents commingling of aquifers and entry of surface contaminants
- Prevents entry of pollutants from the surface
- NSF/ANSI Standard 60 certified

Typical Properties

- | | |
|---------------------------------|-------------------------------|
| • Appearance | Blue to gray, coarse granules |
| • Particle size | 8 to 14 mesh (U.S.) |
| • Volume, ft ³ /sack | 0.7 (as packaged) |
| • Specific gravity | 2.6 |

Recommended Treatment

To seal ponds or earthen structures

Depending on the native soil, disc in or mix 3 to 5 pounds of CASING SEAL material per square foot (14-24 kg/m²) uniformly over the area to be sealed so that a 6-inch (~152 mm) blanket of soil and CASING SEAL material is formed. Do not neglect the edges of the dam or the sides/walls of the pond. This sealing blanket should then be compacted in place and as a further protection to the sealing blanket, 2 to 4 inches (51-102 mm) of local soil or sand should cover the sealing blanket and be compacted.

Recommended Treatment (continued)

If there is water in the pond and the leaking area can be identified and isolated an attempt can be made to broadcast CASING SEAL™ material uniformly at 4 to 6 pounds of CASING SEAL material per square foot (20-30 kg/m²) of surface area. **Note:** Bentonite is more effective as a sealing agent when confined. Therefore, every effort should be made to cover the CASING SEAL material after it is broadcast with a 2-3 inch (51-76 mm) layer of sand. This will reduce the potential for dispersion into the water and un-yielded bentonite particles interfering with the gill action of fish.

To seal and lubricate driven steel casing

1. Dig a cone-shaped depression around the casing. Depression should be 2 to 3 feet (60-90 cm) deep and 6 to 8 inches (152-203 mm) larger at the surface than the casing diameter.
2. Keep cone-shaped depression filled with dry CASING SEAL material protected from getting wet at all times while driving the casing.

Note: When drilling and driving a 4" (102mm) pipe, expect to use 2.5 lbs of CASING SEAL material per foot of hole (3.7 kg/m).

To suspend cuttings while cable tool drilling

1. Place CASING SEAL material in plastic bags.
2. With the tools out of the hole, drop enough bags to get about 10 pounds (4.5 kg) of CASING SEAL material to the bottom of the hole.
3. If the hole is dry, add water. While drilling ahead, the churning action of the tools will form a thick slurry that will support the cuttings off bottom and make it easier for the bailer to remove them.

Additional Information

- The sealing or plugging material and method selected will depend upon the specific subsurface environment including all prevailing geological and hydrological factors and any existing regulatory requirements.
- The use of bentonite may not be appropriate in environments where the formation water chemistry has a total hardness greater than 500 parts per million and/or a chloride content of greater than 1500 parts per million.
- If questions arise regarding subsurface environments it is always best to consult your local Baroid IDP representative to determine if the Baroid product of choice is appropriate for the given conditions.

Packaging

CASING SEAL sealing and plugging material is packaged in 50-lb (23-kg) multiwall paper bags, containing 0.7 ft³.

Availability

CASING SEAL sealing and plugging material can be purchased through any Baroid IDP Retailer. To locate the Baroid IDP retailer nearest you contact the Customer Service Department in Houston or your are IDP Sales Representative.

Baroid Industrial Drilling Products

Product Service Line, Halliburton

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Houston, TX 77032

Customer Service	(800) 735-6075 Toll Free	(281) 871-4612
Technical Service	(877) 379-7412 Toll Free	(281) 871-4613
