

BENTONITE CHIPS

Well abandonment material

DESCRIPTION

BENTONITE CHIPS are a natural sodium bentonite chips designed to seal shallow boreholes or decommissioning wells.

BENTONITE CHIPS are available in Medium 1/4" (0.64mm) or Coarse 3/8" (0.95cm) sizes

APPLICATIONS

BENTONITE CHIPS can be used for sealing of Piezometers in boreholes by providing a seal between aquifers to prevent water migration. When absorbing water, BENTONITE CHIPS swell to fill voids, exerting pressure against all surfaces to create a flexible, low permeable seal.

ADVANTAGES

- Safe and Easy to use
- Non-toxic and environmentally acceptable
- Prevents grout from permeating into gravel pack zones
- No mixing or pumping equipment required
- Can be used for regaining lost circulation
- Provides a flexible seal

TYPICAL PROPERTIES

Physical Appearance	Light to dark grey chips
Specific Gravity	2.4 – 2.6

USAGE

Please refer below to an indicative usage guide according to open hole volumes

Hole Diameter (mm)	Hole Volume m ³	Hole Volume (litres per metre)	Kilograms of chips per metre	
			1/4"	3/8"
76	0.005	4.6	5.2	5.0
102	0.008	8.1	9.4	9.0
114	0.010	10.3	11.8	11.3
127	0.013	12.7	14.6	14.0
140	0.015	15.3	17.8	17.0
152	0.018	18.2	20.9	20.1
178	0.025	24.8	28.7	27.5
191	0.029	28.5	33.0	31.7
200	0.031	31.4	36.2	34.7
216	0.037	36.6	42.3	40.5
254	0.051	50.7	58.4	56.0
279	0.061	61.3	70.5	67.6
305	0.073	73.0	84.3	80.7
324	0.082	82.4	95.1	91.1
445	0.155	155.2	179.4	171.9
610	0.292	291.9	337.0	323.0
660	0.343	342.6	394.5	378.1
762	0.456	456.1	525.9	504.0
914	0.657	656.8	756.6	725.1

Notes:

- Borehole stability and voids may require more chips per metre.
- It is recommended to retain a surface sample of **BENTONITE CHIPS** deposited in the water from the well to ensure an accurate time frame of maximum hydration and swelling .
- Salty & poor quality water may reduce the chips ability to hydrate to expectations
- Pour chips slowly downhole to prevent bridging or binding in unsaturated conditions. Water should be added at half metre intervals.