

# Borehole Fill Material

## Grout Mix



Grout Mix is a pre-blended powder mixture of Ordinary Portland Cement (CEM 1) and a premium grade high quality sodium carbonate activated Bentonite powder in a ratio of 2:1.

PACKAGING: 25kg paper bags, 40 bags per pallet.

### APPLICATIONS

- Borehole sealing
- Grouting
- Isolating instrumentation and sampling zones

### FEATURES

- Easy to use
- Consistent mix quality
- Easy to mix
- High strength
- Stable suspension
- Rapid build up of viscosity
- Can be used with traditional mixing equipment
- Suitable for immediate use after mixing
- Cement to BS EN 197-1 CEM 1
- 25kg bags

### PROPERTIES

	BENTONITE	CEMENT
Colour	Light yellowish grey	Light grey
Odour	None	None
pH	8.5-10	12-14
Specific Gravity	800 - 1100kg/m <sup>3</sup>	1400kg/m <sup>3</sup>
Moisture Content	12%	<5%
% by weight passing BS410 150 $\mu$ sieve	min 95%	min 95%

### MIXING

Litres/water per bag	30	35	40	50
Water/solid ratio	1.2	1.4	1.6	2
Water density kg/m <sup>3</sup>	1340	1323	1315	1211
Yield per bag (litres)	32.8	41.1	50	70.6

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### Mikolit B Bentonite Pellets



Mikolit B® is a sealing pellet which requires no mixing or pumping. It is a patented clay-based pellet with a very low dust content.

It is a high grade bentonite pellet manufactured from a mix of activated calcium bentonites to provide a high swelling capacity of 180-200%.

All Mikolit B® pellets have excellent sinking qualities and are easy to use.

Pellet Size:  $\pm 8\text{mm (D)}$ ;  $7\text{-}12\text{mm (L)}$

Processing Time: None

Sinking Speed In Water:  $21\text{m/min}$

Saturated Density:  $\sim 1.70\text{-}1.80\text{ t/m}^3$

Bulk Density:  $\sim 1.0\text{ t/m}^3$

Delayed Swelling Time:  $\sim 12\text{ minutes}$

Swelling Capacity:  $180\text{-}200\%$  Swelling Pressure:  $12\text{-}15\text{ kN/m}^2$

Permeability:  $< 10\text{-}12\text{m/s}$

SHELF LIFE: Unlimited if unopened & kept in a dry location

PACKAGING:  $25\text{kg}$  waterproof bags,  $42$  bags per Europallet (disposable).  $500$  &  $1000\text{kg}$  'Big Bags' also available

#### APPLICATIONS

Borehole sealing

Isolating instrumentation and sampling zones

#### FEATURES

$180\text{-}200\%$  swelling capacity

Suitable for use in seawater

Pre-formed pellet

Delayed swelling

No grout loss

No grouting/mixing machines required

Simple & easy to use

Environmentally friendly

Low permeability

Dust-free

## Borehole Fill Material

### Quantity table



#### ESTIMATED AMOUNT OF MIKOLIT B REQUIRED KG/M

Pipe Outside Diameter (mm)	BOREHOLE DEPTH (mm)									
	00	100	125	150	200	250	300	400	500	600
	0	8	12	18	31	49	70	125	195	280
	50	6	10	16	29	47	68	123	193	279
	100		4	10	23	41	62	117	187	273
	125			5	19	37	58	113	183	269
	160				11	29	50	105	175	261
	200					18	39	94	164	250
	250						21	76	146	232
	315							47	118	203
400									70	156
500										186



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