

BASIC MUD RECIPES FOR HORIZONTAL DRILLING

Concentration for 1 m³ of clear water

Bentonite:

Solid and cohesive formation:

Soda	1 – 2 kg
BENTONIT W plus	10 – 20 kg

Polymer additives:

ARGIPOL P	0,2 – 0,5 kg
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(decreasing friction – resistance when pulling back protective pipes or back reaming = BR)

Clay, claystone, siltstone:

Soda	1 kg
BENTONIT W plus	15 – 20 kg

ARGIPOL P	0,2 – 0,5 kg
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(stabilization of borehole walls, decreasing resistance when pulling back protective pipes or BR., limitation of clay balling)

MODIDET	0,2 – 0,5 kg
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(limitation of clay balling, better cuttings removal – better rate of penetration)

Fine to course sand:

BENTONIT W plus	20 – 30 kg
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ARGIPOL P	0,2 – 1,0 kg
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(stabilization of borehole walls, decreasing resistance when pulling back protective pipes and BR.)

PAC R	0,5 – 1,5 kg
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(stabilization of borehole walls, improving cuttings recovery, decreasing loses of circulation)

MODISORB 200	0,5 – 1,0 kg
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(decreasing mud loses to the terrain, improving cuttings recovery)

Gravel, gravel sand, pebbles:

BENTONIT W plus	25 – 40 kg	ARGIPOL P	0,5 – 1,0 kg (stabilization of borehole walls, decreasing resistance when pulling back prot. pipes or B.R.)
		PAC R	0,5 – 1,5 kg (stabilization of borehole walls, improving cuttings recovery)
		MODISORB 200	1,0 – 1,3 kg (decreasing mud loses to the terrain, improving cuttings recovery)
BENTONIT W plus	32 – 35 kg	MODIPLEX MH	2,5 kg (stabilization of extremely unstable borehole walls, improving cuttings recovery, limitation of mud loses)

Note:

- In case of hard water (hardness above 10°dH) or if necessary, 0,5 – 1,0 kg/m³ of Soda Ash to be used 10 minutes prior to addition of BENTONIT W plus.
- ARGIPOL P, eventually also ARGIPOL NF (liquid), is necessary to add only after bentonite is already mixed up (5 – 10 min)
- The following sequence of mixed additives shall be generally followed up:
Soda – BENTONIT W plus – PAC R – ARGIPOL P – MODIROS 200.