

BETONAMIT[®] *Instructions for use*

BETONAMIT is a non-explosive cracking agent, which enables comparatively precise explosion of rock and concrete, without additional special requirements or equipment being necessary. After a reaction time of just a few hours, BETONAMIT develops an enormous expansion pressure, which is soon so high, that any hard rock and concrete is ripped asunder. In comparison with other conventional explosion methods, demolition works with BETONAMIT are free from vibrations, and do not require a licence for explosives.

Preparation

Please ensure that the following equipment is prepared before the start of work:

- ✓ BETONAMIT – the original
- ✓ Safety equipment (safety goggles and protective gloves)
- ✓ Mixing container (made of plastic or metal)
- ✓ Electric mixer
- ✓ Impact drill
- ✓ Drill bit (diameter 30mm to 40mm)
- ✓ Correct quantity of cold and clean water (below 20°C if possible)
- ✓ Cover material (shuttering boards, tarpaulin or similar)

Work process

In the first step, holes are drilled with a diameter of 30-40mm. The optimum drill hole distance is around 10x the drill hole diameter, and therefore around 30-40cm. Now add the BETONAMIT powder into the mixing container. Then add 1.0 to max.1.2 litres (per 5 kilograms) cold and clean water. Mix the mixture for approx. one minute with a stirrer, until there is a fluid, homogeneous mixture. Pour the mixture directly from the mixing container into the drill holes. The drill holes must be as clean and dry as possible. No additional mechanical closure is required.

Application

Crack formation always occurs in the direction of the lowest resistance. A larger drill hole diameter means more power, shorter explosion time and wider crack formation. Therefore, if possible, use drills around 40mm. Smaller drill hole distances mean smaller fragments and a shorter explosion time.

- **Separation / cracking:** The holes are drilled in a line with a small drill hole distance. Cracks are therefore formed from hole to hole. In this way, for example, concrete foundations or even boulders can be separated or cracked relatively precisely.
- **Crushing:** The holes are drilled offset in several rows, to get the smallest possible fragments. The more drill holes, the smaller the fragments. The cracks form across the length and breadth.
- **Wedge eruptions:** If no side is free to displace the materials, space must first be created. This is possible with either drill holes opposite each other, at an angle of 35-60°, or even on one side, at an angle of 45-60°. Angled drill holes are also suitable when a large-scale lowering of the ground level must be achieved. (Cellar etc.)
- **Loosening:** In the case of rocky ground or cliffs, the holes are drilled in several rows 10-20cm below the necessary level, and filled. The ground is loosened, so that it can then be removed with the digger or sometimes even by hand.
- **Unfilled drill holes:** Via empty drill holes, a position can be determined, where the cracks should run, or it can be determined where a crack should end. Empty drill holes are usually used for partial demolitions, where, for example, parts of a concrete foundation must be retained.

Safety regulations

1. Use BETONAMIT exclusively for breaking up rock and concrete.
2. Only use BETONAMIT within the temperature ranges specified in the instructions for use (5°C - 35°C).
3. Never use hot or excessively warm water (max. 20°C).
4. Adhere to correct water quantity: 1.0 to max. 1.2 litres per 5 kg BETONAMIT.
5. Only use drill bits with a diameter between 30mm and 40mm.
6. The maximum drill hole depth is around 3-5 metres.
7. The minimum drill hole depth corresponds to 5x the drill hole diameter.
8. The drill holes must be as clean and dry as possible.
9. Do not mix more than one bag of BETONAMIT with water at the same time.
10. On very hot days, only fill the drill holes early in the morning, as far as possible.
11. Pour BETONAMIT into the boreholes immediately after mixing.
12. Do not leave BETONAMIT residues in the mixer. Dilute residues with plenty of water and dispose of according to the local regulations.
13. Never look directly into filled boreholes during (danger of blow-out).
14. Secure the workplace against unauthorised persons.
15. When working with BETONAMIT in closed rooms, always wear a dust mask.
16. Do not cover filled boreholes with sand or any other loose materials, but with a tarpaulin or shuttering board.
17. Do not place any iron rods etc. into the boreholes to reduce the borehole diameter.
18. BETONAMIT must not be pumped.

Checklist for the safe use of BETONAMIT

1. Am I wearing the obligatory personal protective equipment? Safety goggles and safety gloves!
2. Is my drilling machine suitable for drilling the required drill hole diameter in stone and concrete?
3. Is the diameter of my drill between 30mm and 40mm?
4. Have I provided the correct quantity of water? Measured – not guessed!
5. Does the size of my mixer fit the mixing container provided?
6. Is the mixing temperature in the recommended range? Under 20°C!
7. Is the ambient temperature between 5°C and 35°C?
8. Is the temperature of the object to be blasted below 35°C?
9. Can the exploded or displaced material give way in one direction?
10. Can I rule out the high expansion pressure or the displaced material causing unwanted damages? (Masonry? Base plate?)
11. Are the fragments secured against rolling away after explosion? (e.g. on sloping surfaces)
12. Have I read and understood the instructions for use and safety regulations?

What is a blow-out effect?

In the case of non-adherence to the regulations, a blow-out can occur. A blow-out effect is when BETONAMIT suddenly spurts out of the borehole, like a volcano. After a first blow-out has occurred, this effect is repeated around 3-6 times, at short intervals, and can also happen in further boreholes. So, in the case of a blow-out effect, please do not enter the danger zone. BETONAMIT is an inorganic compound and primarily consists of caustic lime. BETONAMIT is not toxic. However: BETONAMIT is a highly alkaline product like lime or cement and can lead to severe eye injuries or blinding in some cases if it comes into contact with the eyes! If you have any questions in relation to safety or handling, please ask for information from us or your vendor.

You can find further information about the product, examples of use, data sheets and technical information on our website at: www.betonamit.com.

Hazard warnings / urgent measures

H315 Causes skin irritation. H318 Causes severe eye damage. H335 May irritate the respiratory tract. **Safety regulations:** P261 Avoid breathing in dust. P280 Wear protective gloves and safety goggles. P305+P351+P338 **IN CASE OF CONTACT WITH THE EYES:** Rinse carefully with water for a few minutes. Remove contact lenses if possible. Continue to rinse. P310 Call the POISON INFORMATION CENTRE/doctor immediately. P302+P352 IF IT COMES INTO CONTACT WITH SKIN: Wash with plenty of water and soap.

Warning

Contains calcium oxide (CaO)

