

BETONAMIT®

Non-explosive demolition agent for the safe and controlled breaking of rock and concrete – developed and manufactured in Liechtenstein.

KUBATEC

PRODUCT

The gentle alternative to blasting

BETONAMIT® is a non-explosive demolition agent for the gentle and controlled breaking of rock and concrete – the environmentally friendly alternative to conventional demolition methods. Where blasting is not permitted or desired, where chiselling places enormous strain on workers, or where vibrations must be avoided, BETONAMIT® offers exactly the right solution.

As a European manufacturer, we have established an internationally leading position with our quality product. Production continues to take place at our own plant in Liechtenstein – exclusively from raw materials sourced in Switzerland and the EU. Today we produce for renowned companies worldwide, both under our own brand and under numerous private labels on behalf of customers.



Boulder split without vibrations – no noise, no blasting.

50 years
Experience in manufacturing and application

3 years
Minimum shelf life

0 – 35 °C
One product for all temperatures

Quality features and USPs

- Highest safety and reliability in application
- Compliance with all international regulations (REACH, GHS)
- No special transport or storage requirements
- Additives and accessories for horizontal and overhead applications (BETONAMIT® Special)
- Custom packaging and container solutions
- Fast implementation of private-label projects
- Territorial protection and exclusive rights possible

Standard packaging

- Carton 20 kg (4 × 5 kg)
- Carton 10 kg (4 × 2.5 kg)
- Pail 5 kg
- Pail 2.5 kg
- Sack 5 kg
- Sack 2.5 kg

Delivery as individual cartons, pallets, truckloads or containers – on request in customer-specific packaging.

APPLICATION

Preparation and workflow

Equipment before starting work

- BETONAMIT® – The Original
- Safety goggles and protective gloves
- Mixing container made of plastic or metal
- Electric mixer
- Drilling machine and drill bits according to technical specifications
- Cold, clean water
- Covering material if required



01
Drill holes according to technical specifications – as dust-free and dry as possible.



02
Pour BETONAMIT® powder into the mixing container.



03
Add 1.2 litres of cold, clean water per 5 kg (max. 20 °C).



04
Mix mechanically for 2 minutes until the mixture is flowable and homogeneous.



05
Fill the mixture directly from the container into the drill holes immediately.



06
Wait for the reaction – cracking occurs in the direction of least resistance.

The maximum hole spacing is 10 times the hole diameter; smaller spacings produce even better results. The mixture initially appears dry, but its consistency changes abruptly during mixing. Dilute any excess mixture with plenty of water to deactivate it and dispose of it with the remaining construction waste.

TECHNOLOGY

Technical specifications and reaction time

To achieve the best possible breaking result, compliance with the following specifications is crucial:

TEMPERATURE (OBJECT)	0 – 15 °C	15 – 25 °C	25 – 35 °C
Drill bit diameter (Ø hole)	30–50 mm	30–45 mm	30–40 mm
Maximum hole spacing	10 × Ø	10 × Ø	10 × Ø
Water quantity per 5 kg	1.2 litres	1.2 litres	1.2 litres
Reaction time	12–96 h	6–72 h	2–48 h

DRILLING INSTRUCTIONS

Splitting, breaking and crushing

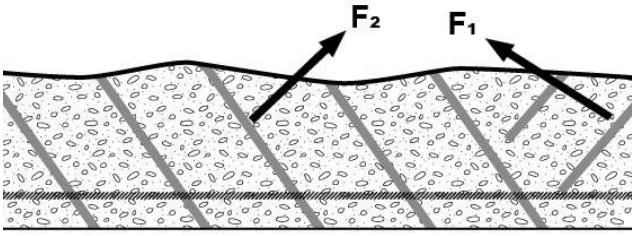
Cracking always occurs in the direction of least resistance. A larger hole diameter means more force, a shorter reaction time and wider crack formation. Smaller hole spacings mean smaller fragments and a shorter reaction time. The drilling depth should be at least ¾ of the total depth.



DRILLING INSTRUCTIONS

Trenching, loosening and removing

The target level is usually drilled 5–15 cm deeper to avoid subsequent chiselling work. The expansion pressure always develops 90° to the drill hole. Even in unfavourable situations, angled drilling can create a free face. All rows of holes can be filled at the same time.



Tip: BETONAMIT® continues to expand over several days. The more time you allow the product, the easier the removal of the broken pieces becomes.

CONSUMPTION

Calculate requirements correctly

Consumption per cubic metre

The easiest way to calculate the approximate consumption: To break up 1 m³ of rock, stone or concrete you need around **10 kg of BETONAMIT®**.



Consumption per drill metre

The sum of all holes in metres is multiplied by the factor for the hole diameter.

Example: 10 holes × 0.3 m depth × 2.2 kg (Ø 40 mm) = **6.6 kg BETONAMIT®**

Guide values only. Allow a reserve of 5–10 % depending on drilling accuracy and losses.

Three steps to the quantity

- Define drilling pattern: Ø, spacing (max. 10 × Ø), depth (min. 5 × Ø)
- Total drill metres = number of holes × hole depth
- Drill metres × factor from the table = requirement in kg

< 30 mm	30 – 45 mm	> 45 mm
possible, low effect	standard range	consult manufacturer

Ø HOLE	KG PER DRILL METRE
SMALL DIAMETERS	
20 mm	0.55 kg
25 mm	0.86 kg
STANDARD RANGE 30 – 45 MM	
30 mm	**1.24 kg**
32 mm	**1.41 kg**
34 mm	**1.59 kg**
35 mm	**1.68 kg**
36 mm	**1.78 kg**
38 mm	**1.98 kg**
40 mm	**2.20 kg**
42 mm	**2.42 kg**
44 mm	**2.66 kg**
45 mm	**2.78 kg**
OVER 45 MM — CONSULTATION REQUIRED	
50 mm	3.44 kg
55 mm	4.16 kg
60 mm	4.95 kg

Why 30 – 45 mm? In this range the effect is optimal and safely controllable. As the hole diameter increases, the risk of a **blow-out** (sudden ejection of the mixture) rises. Therefore use diameters over 45 mm only after **consultation with the manufacturer**.

Safety regulations

- Use only at object temperatures between 0 °C and max. 35 °C.
- Do not use warm water (max. 20 °C).
- Observe the correct water quantity: 1.2 litres per 5 kg.
- Mix mechanically wherever possible – poor mixing increases the blow-out risk.
- Use only drill bits with the recommended diameter.
- Minimum hole depth = 5 × hole diameter.
- Maximum hole depth depending on the situation, approx. 6 metres.
- Holes must be as clean and dry as possible.
- On hot days, fill the holes early in the morning.
- Fill the mixture into the holes immediately after mixing.
- Dilute residues with plenty of water and dispose of them in accordance with local regulations.
- Never look directly into filled holes (blow-out hazard).
- Secure the work area against unauthorised access.
- Do not fill the mixture into bottles or closed containers (explosive effect).
- Observe hazard and safety instructions on the packaging (GHS).

Caution: What is a blow-out effect?

If the instructions are not followed, the product is handled improperly, or conditions are too warm, a blow-out may occur – the sudden, explosive-like escape of BETONAMIT® from the drill hole. If struck in the face, this can cause serious injury. Therefore never look directly into filled holes and always wear safety goggles. After an initial blow-out, it will repeat approximately 3–6 times and can also occur in other holes. Keep the work area clear of all persons for at least 3 hours.

Checklist for safe application

- Safety goggles worn?
- Correct hole diameter?
- Cold, clean water in the correct quantity ready?
- Object temperature below 35 °C?
- Fragments can be displaced in at least one direction?
- No unintended damage from expansion pressure?

Immediate measures

BETONAMIT® is not toxic, but contains a large proportion of unslaked lime (calcium oxide). In case of eye contact, rinse gently with water for several minutes, remove contact lenses if possible and continue rinsing. In case of skin contact, wash with plenty of water and soap. In case of pain, injury or allergic reactions, seek medical attention immediately.

Excerpt from the official BETONAMIT® instructions for use. Complete version and safety data sheets as PDF in the download area.

PROJECT EXAMPLES

BETONAMIT® in action

Controlled breaking of rock and concrete – without vibrations, without noise and without blasting permits. A selection of completed projects.



Boulder in open terrain split in a controlled manner



Erratic boulder in residential area split without vibrations



Concrete wall torn along the row of holes in a controlled way



Rock breaking in cellar instead of chiselling



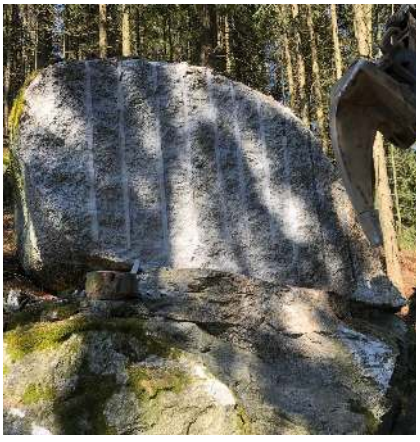
Trench excavation in rock – material loosened in advance



Dismantling of a concrete barrier in a gorge



Rock removal above a busy road



Erratic boulder in forest split noiselessly into slabs



Concrete foundation demolished indoors



CONTACT

Manufacturer and contact

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Consulting and ordering

Consumption calculations, instructions for use and safety data sheets in numerous languages are available directly from us.

Visit kubatec-bmt.com
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BETONAMIT®
The Original.

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