

THE SILENT DESTRUCTION



CRACKAMITE is a non-explosive controlled demolition agent which works by providing silent expansive cracking for rock breaking, stone quarrying, mining, concrete demolition, excavation and more...

For Demolishing work in construction in tight quarters, the use of explosive agents is very restricted due to safety and environmental issues. A unique product like **Crackamite** comes as the ultimate solution. Marble, granite, limestone, plain concrete, reinforced concrete, boulders, ledge, are fractured overnight without noise, vibration or flying debris.

What is Crackamite?

Crackamite is a soundless, non-explosive and safe demolition agent, which is quite different from other demolition methods like explosives. It does not cause any explosion, noise, ground vibration, gas, dust or other environmental pollution when used properly.

Crackamite is a non-toxic powder of oxides of calcium, silicon and aluminium. It does not contain any harmful components and provides the most suitable and cost effective solution in restricted demolition of rocks and concrete structures where nearby structure must be protected from shock waves generated by explosives. Explosives are expensive due to special transport, storage, usage and handling requirements, and safety regulation compliance.

Where can Crackamite be used?

Crackamite provides the most technically suitable and cost effective solution in:

- Restricted demolition of rock and concrete structures where nearby structures must be protected from shock waves generated by explosions.
- Pre-splitting of rock formations, to create isolated blocks that can then be more easily demolished.
- Cutting blocks of marble and granite more economically than with the traditional helicoidal wire cutting method.
- Excavations and demolition of rock formations or cement and concrete structures where the use of explosives would be expensive due to long operating times, special transport, storage and handling precaution and the need to comply with public safety regulation.



Benefits of using Crackamite

With an unlimited range of applications, it is particularly suitable for breaking, cutting or demolishing stones, concrete and reinforced concrete.

Crackamite is a safe substance:

It is not controlled by any legal regulation requirements. It is non-explosive, making supervision of trained personnel non-essential. It requires no special storage precautions if kept in a dry place. The product is not sensitive to electrical discharge or currents.

It is a soundless cracking agent:

Unlike the existing methods of demolition, Crackamite does not make any noise, vibration, flying debris, dust or gas. It demolishes rock or concrete with its expansive stress which continues even after crack initiation. The crack opening distance becomes wider as time passes.

It is easy to handle:

No capping is necessary after Crackamite is poured nor is tamping required. It exerts its strength in a short time. Due to its strong adhesion and frictional resistance, spurs due to heat-generation do not occur when used properly. The expansive stress along the hole depth is almost constant except near the hole entrance.

As easy to use as mix it, fill it, crack it:

Just mix Crackamite with water, pour into pre-drilled holes and it expands to crack. Neither capping with mortar or sand nor tamping with a bar is necessary. No

requirement of licenses unlike explosives, explosive agents, etc. Environment friendly, it releases no toxic or harmful substances of any kind.

Generates tremendous expansive stress

Crackamite generates tremendous expansive stress of more than 11 MT/m². The tensile fracture stress of rocks and concrete is very small, in the range of 40 to 70 T/m² in concrete. Since demolition by Crackamite is based on fracture mechanism due to a tensile stress, all kinds of rocks and concrete can easily be cracked and broken using Crackamite.

Controlled shape cracking and breaking:

Crackamite makes it very easy to control the shape of the to-be cracked objects according to requirements. The fracture cracks develop along the line of holes and hence it is easy to control the shape of the cracked objects. Cracked rock or concrete can then easily be broken with breakers. Crackamite can demolish rock or concrete systematically, and also demolition work in water is possible.



Table 1. Comparison of Crackamite with others

| Type of Demolition Agent | Demolition /Breaking Powder | Conditions Created at the work site | | | | | Protection Needed at Job Site | Economy |
|------------------------------|-----------------------------|-------------------------------------|------------------|------------|-----------------|------------|-------------------------------|-----------|
| | | Noise | Ground Vibration | Dust/Gas | Flying particle | Safety | | |
| Explosive (Dynamite) | Very High | Very High | Very High | Very High | Very High | Very High | Very High | Very High |
| Explosive (Concrete Cracker) | High | High | High | Very High | High | Low | Very High | High |
| Rock breaker | Low | High | Low | Low | Very Low | High | Low | Low |
| Hydraulic Splitter | High | Low | Low | Almost Nil | Almost Nil | High | Low | Very Low |
| *Crackamite | High | Almost Nil | Almost Nil | Almost Nil | Almost Nil | Almost Nil | Almost Nil | High |

*Result differ subject to the circumstances