

Product Lineup

Product name	 Freshwater type MT-1 Suitable for mud not containing cement or seawater	 All-purpose type MT-2 Suitable for all types of mud	 Sea water type MT-3 Suitable for mud containing sea water
Form / Packaging	White powder/plastic bag (15 kg)	Gray powder/plastic bag (15 kg)	Gray powder/plastic bag (18 kg)
Additive amount	Approx. 2 to 8 kg/m ³	Approx. 1 to 5kg/m ³	Approx. 1 to 5kg/m ³
Standards	Type for regular mud	Type for regular mud or cement-mixed mud	Type for seawater mud
Features	- Absorbs moisture from the muddy soil and improves it to a dry and powdery consistency. - The reaction begins the moment the product adheres to the muddy soil, so only light mixing is required for improvement.	- Absorbs moisture from muddy soil, improves viscosity, and gives the soil a soft, cohesive consistency - Requires sufficient mixing because product effect is generated when dissolved ingredients entangle with soil particles. - Dust suppression treatment reduces scattering, even on windy sites.	- Improves viscosity in mud and gives it a soft, cohesive consistency - Requires sufficient mixing because product effect is generated when dissolved ingredients entangle with soil particles. - Dust suppression treatment reduces scattering, even on windy sites.
Applicable soil types	- River dredging soil - Excess muddy water from jacked shield construction - Reservoir sediment - Mud excavated from construction sites etc. - Mud generated by extreme rain events etc. - All types of construction mud	- Soil dredged from rivers and ports - Muddy water from jacked shield construction - Reservoir sediment - Mud excavated from construction sites etc. - Mud generated by extreme rain events etc. - All types of construction mud - Ground improvement and piling mud	- Harbor dredging soil - Various types of mud containing sea water

Precautions and notices for use

- When using these products, please wear a dust mask and protective gloves before spreading onto the soil to be improved.
- These products can make improvements with very small additive amounts. Use within the range of standard additive amounts.
- For uniform mixing of these products, mixing in a steel tank or pit is recommended.
- MT-2 and MT-3 can improve muddy soils to a plastic states with low additive amounts, but they are only effective when mixed thoroughly. Therefore, if the amount of soil to be improved is large or mixing is difficult, improvement by a backhoe attachment such as drive mixing is recommended.
- When cement or lime is added to MT-1-treated soil, some of the moisture in the mud may drain out. Therefore, please do a preliminary mixing test before use.
- This product does not contain any cement or lime.
- When storing this product outdoors, cover it with a plastic sheet or similar covering to prevent exposure to sunlight and rainwater.
- Samples of this product are available free of charge, so please contact us or our distributors if you wish to obtain one.

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Amended in July 2024.

Say goodbye
to worries
about mud.

MIET

High Water Content Mud Improvers

MT SERIES



A new option for transporting mud



MT Series High Water Content Mud Improvers

Various types of construction work are going on all around us, such as river improvements to prevent flooding, and tunneling to extend expressways. Such sites generate amazing amounts of mud. Mud has high fluidity and interferes with construction work. The approach until now was to sun-dry it on site, or to harden it with cement or lime before being carried out.

However, these conventional methods have various problems, including the need for a large site for sun-drying and the time required for solidification. To solve these problems, we developed the MT Series of high water content mud improvers, which immediately harden the mud for easy transportation.



Put the mud into a pit



Add MT Series



Mix for about 15 minutes with a backhoe



Transport by dump truck

How to Use

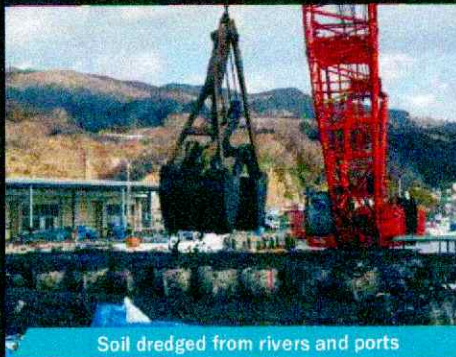
It's so easy to use. If you have a backhoe and a pit, the process is easy for anyone.

- 1 Put the mud into a pit
- 2 Spread broadly and shallowly, so the MT Series product spreads throughout the mud.
- 3 Mix for about 15 minutes with a backhoe.
(you can mix the mud more uniformly with drive mixing etc.)
- 4 Load the MT-treated mud into dump trucks and transport it away.

Applicable to all types of mud



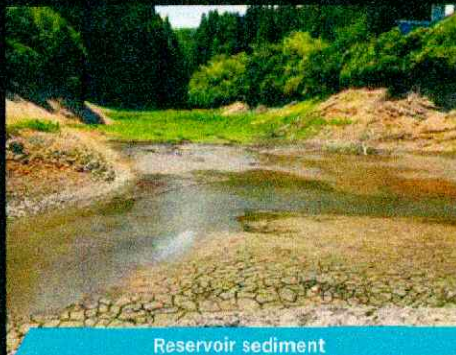
Applicable soil types



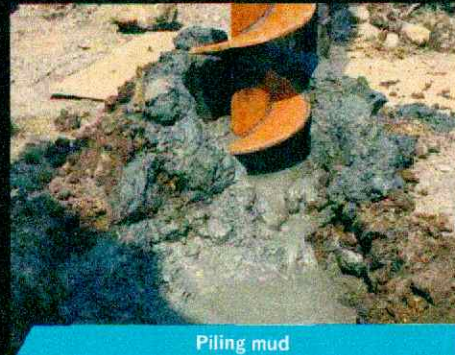
Soil dredged from rivers and ports



Excess muddy water from jacked shield construction



Reservoir sediment



Piling mud



Mud excavated from construction sites etc.



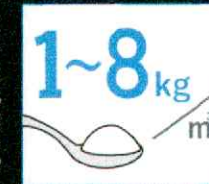
Mud generated by extreme rain events etc.

Features



Ready to transport immediately

After adding this product and mixing with a backhoe for about 15 minutes, the mud is transformed into a plastic state and can be immediately transported by dump truck.



Low additive amounts

The products improve mud at very low additive amounts of 1 to 8kg/m³.



Environment friendly

This product has a neutral pH, clears all soil environmental standards, and has been confirmed to be safe for Japanese rice fish (Himedaka), so they are both safe and environment friendly.



Suppresses dust

MT-1 is granular, while MT-2 and MT-3 have been specially treated for dust suppression, so they don't blow away even on windy sites.



CO₂ emission reduction

Compared to transporting mud treated with cement or lime, the products can reduce CO₂ emissions by about 90%.



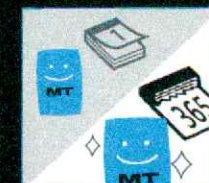
Improved handling

MT-2 and -3 include ingredients to reduce adhesion to metals, so the treated soil sticks less to backhoes and dump trucks and is easier to handle.



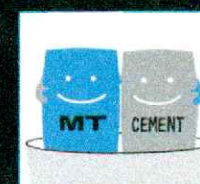
Improves mud at room temperature

While soil improvement with quicklime generates a large amount of heat, this product can be transform soil at room temperature.



Usable even after a year

Since the products are packaged in special laser-processed plastic bags, they can be used without problems even after a year, if the bag is unopened.



Usable in combination with solidifying material

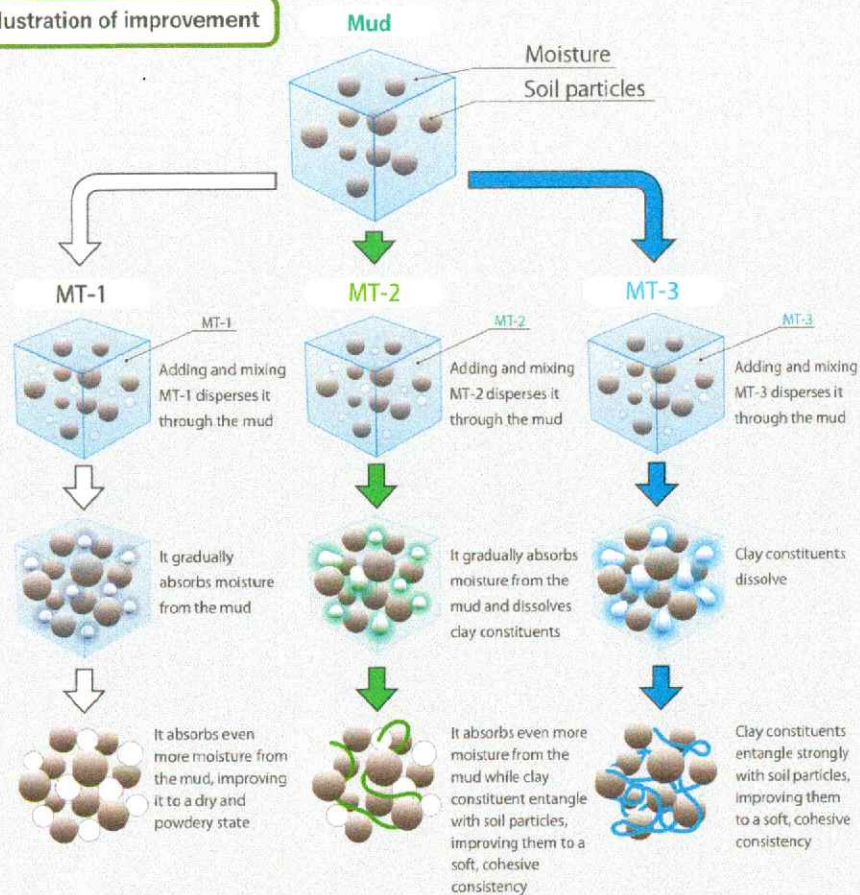
Even if the products are used together with a solidifying material such as cement or lime, they have almost no impact on final improvement effects and strength development. (Not including MT-1)



NETIS-registered products

The products are registered under the New Technology Information System (NETIS) of the Ministry of Land, Infrastructure, Transport and Tourism, the ministry with jurisdiction over construction work in Japan.

Illustration of improvement



When using MT-treated soil as embankment material etc.

MT Series products that absorb moisture in mud to improve the mud into a transportable state, so the MT series has almost no strength immediately after the improvement.

When using MT-treated soil for embankments etc., please perform any of the following (1) to (3) to confirm the soil quality according to the application.



(1) Sun-dry MT-treated soil

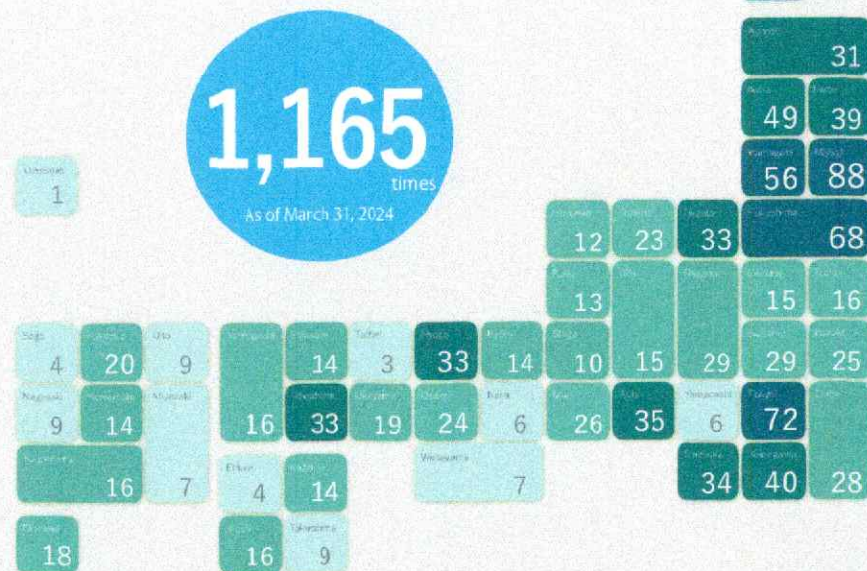


(2) Mix improved soil with MT-treated soil



(3) Improve MT-treated soil with cement or lime etc.

Hiring record



○ Dam sediment

This project involves the installation of replacement road piers for the construction of a new dam. Sediment deposited in the dam was improved with MT-2 and immediately transported to a temporary storage site several kilometers away.



○ Reservoir sediment

This project involves the construction of a reservoir embankment and water intake facility. Mud deposited in the reservoir was improved with MT-1 and immediately transported to a sediment disposal site approximately 10 km away.



○ River dredging soil

This project is to dredge sediments deposited in a river to secure river volume. The dredged soil was improved with MT-2 and immediately transported to a temporary storage site approximately 10 km away.



○ Harbor dredging soil

This project is to dredge sediment deposited in a fishing port. Mud dredged by a grab barge was improved with MT-3 and immediately transported to a temporary storage site about 22 km away.



○Excess muddy water from mud-pressure shield tunneling

This project is to build water storage pipes to prevent flooding in urban areas in case of localized downpours. Excess muddy water generated from the mud-pressure shield tunneling method was transported from the site using MT Series products and cement-based solidifiers together.



○Excess muddy water from mud pipe jacking construction

This project is to bury the power pipe from a mega solar power plant to an industrial park. Excess muddy water generated from the mud pipe jacking method was improved by MT-1 and immediately transported to an intermediate treatment facility.



○Piling mud

This project is for the construction of an apartment building in Tokyo.

Mud containing cement generated during friction pile installation was improved with MT-2 and immediately transported to a temporary storage area on site.



○Piling mud

This project is for the construction of a drainage pumping station.

Mud generated during pile driving by the boring pile method was improved with MT-2 and immediately transported to a temporary storage site.

