## 产品线

| 产品名称 | 淡水型 MT-1 | 万能型 MT-2 | 海水型 MT-3 |
|---|---|---|---|
| | 适用于不含水泥或海水的淤泥 | 适用于各种淤泥 | 适用于含海水的淤泥 |
| 性状／发货形态 | 白色粉状／塑料袋（15kg） | 灰色粉状／塑料袋（15kg） | 灰色粉状／塑料袋（18kg） |
| 添加量 | 约 2 ～ 8 kg/ ㎥ | 约 1 ～ 5 kg/ ㎥ | 约 1 ～ 5 kg/ ㎥ |
| 规格 | 普通淤泥适用型 | 普通淤泥、水泥淤泥适用型 | 海水淤泥适用型 |
| 优势 | ○吸收淤泥中的水分，将其改良为干爽状态<br>○在附着于淤泥的瞬间便开始反应，仅需稍加混合便可改良 | ○吸收淤泥中的水分并提高粘度，将其改良为柔韧性状<br>○为了让溶解后的成分与泥土颗粒结合以发挥效力，需要充分混合<br>○已作抑尘处理，所以在风力较强的工地也能降低飞散 | ○提高淤泥的粘度，将其改良为柔韧性状<br>○为让溶解后的成分与泥土颗粒结合以发挥效力，需要充分混合<br>○已作抑尘处理，所以在风力较强的工地也能降低飞散 |
| 适用的泥土 | 河道疏浚土<br>顶管、盾构剩余泥浆<br>水池堆积土<br>建筑工地等挖掘产生的淤泥<br>暴雨灾害等产生的淤泥<br>各种建设污泥 | 河道、港湾疏浚土<br>顶管、盾构剩余泥浆<br>水池堆积土<br>建筑工地等挖掘产生的淤泥<br>暴雨灾害等产生的淤泥<br>各种建设污泥<br>地盘改良、打桩泥浆 | 港湾疏浚土<br>含海水的各种淤泥 |

## 使用注意、通知

○使用本产品时请戴好防尘口罩和防护手套，撒在需改良的土上。
○只需添加极少量本产品即可得到改良效果。请在标准添加量范围内使用。
○为了使本产品混合均匀，建议在钢制水箱或坑里搅拌。
○少量添加 MT-2、3 即可将泥浆改良成可塑状态，但需要充分混合后才能发挥作用。因此，若需要改良的土量较多或混合有困难，建议使用驱动铲斗机等反铲附件。
○若在 MT-1 处理土中添加水泥或石灰等物，泥浆中的部分水分可能会流失，因此使用前请通过混合试验进行确认。
○本产品不含任何水泥或石灰。
○户外存放本产品时请用蓝色篷布覆盖，以防日晒雨淋。
○本产品可免费提供样品，需要的客户请向敝公司或零售商咨询。


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2024 年 7 月修改

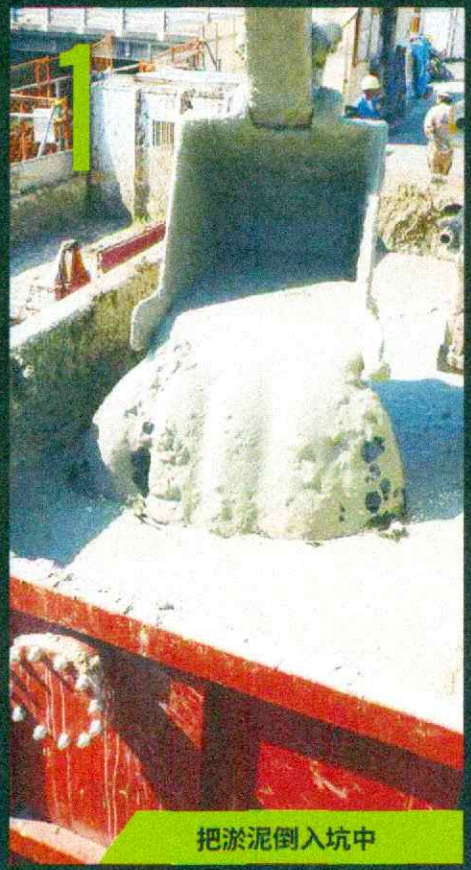
# 淤泥运送新选择


## 什么是高含水率淤泥改良剂 MT 系列?

在我们身边，每天都有河流防洪改善工程、延伸高速路时的隧道工程等工事施工，而这些工地会意外地产生大量淤泥。

由于淤泥具有较高的流动性，会干扰施工，所以传统处理方式是自然晾干或用水泥、石灰固化后运出。然而这些传统方法存在各种问题，比如自然晾干时需要较大的占地面积、固化需要较长的时间等。

为解决这些问题，我们研发了可使淤泥立即固化以便于运输的“高含水率淤泥改良剂 MT 系列”。



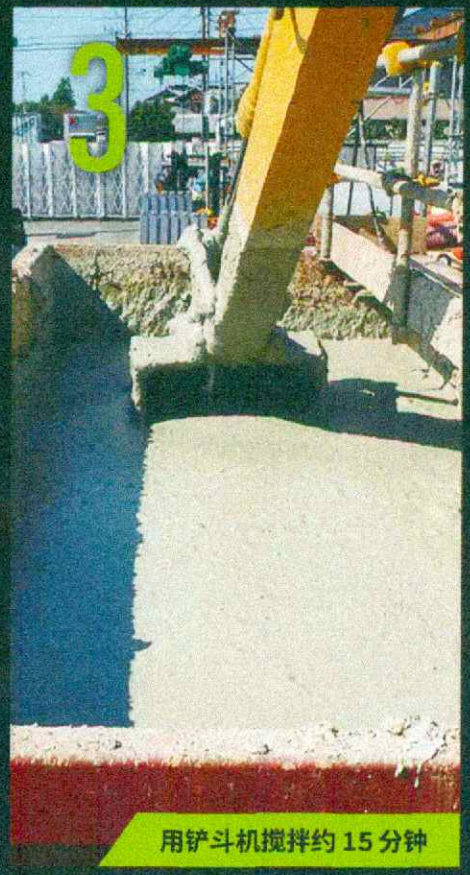
把淤泥倒入坑中

添加 MT 系列

## 使用方法

使用方法非常简单。只要有铲斗机和坑，谁都可以轻松实施。

1 把淤泥倒入坑中
2 将 MT 系列薄而广地铺开以覆盖全部淤泥
3 用铲斗机搅拌约 15 分钟（使用驱动铲斗机等设备可实现更均匀的搅拌）
4 将 MT 处理土装入自卸车运出



用铲斗机搅拌约 15 分钟

用自卸车运出

# 适用于任何淤泥


## 适用的泥土


河道、港湾疏浚土


顶管、盾构剩余泥浆


水池堆积土


打桩淤泥


建筑工地等挖掘产生的淤泥


暴雨灾害等产生的淤泥



## 优　势


### 可立即运出

添加本产品后用铲斗机搅拌约 15 分钟，淤泥会被质改为可塑状态，可立即用自卸车运出。


### 低添加量

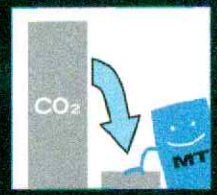
只需添加极少量本产品（约1 ～ 8 kg/m³）即可对淤泥进行质改。


### 环保

本产品 pH 值为中性，已达到所有土壤环境标准，并被证实对绯鲤安全，是安全且环保的产品。

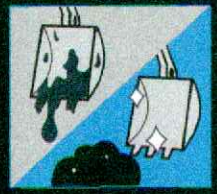

### 抑制扬尘

MT-1 为颗粒状，MT-2、3 经过了特殊抑尘处理，所以在风大的工地上也不会飞散。




### $CO_2$ 减排

与使用水泥或石灰运输泥浆相比，本产品可减少约 90% 的 $CO_2$ 排放。




### 便于装卸

MT-2、3 含有降低金属附着力的成分，便处理土难以附着在铲斗机或自卸车上，便于装卸。

### 质改为可以为常温

用生石灰改良土质会产生较大热量，但用本产品进行的质改为可以为常温。


### 1 年后也能使用

本产品采用经过特殊激光处理的塑料袋包装，在未开封的状态下一年后仍可正常使用。

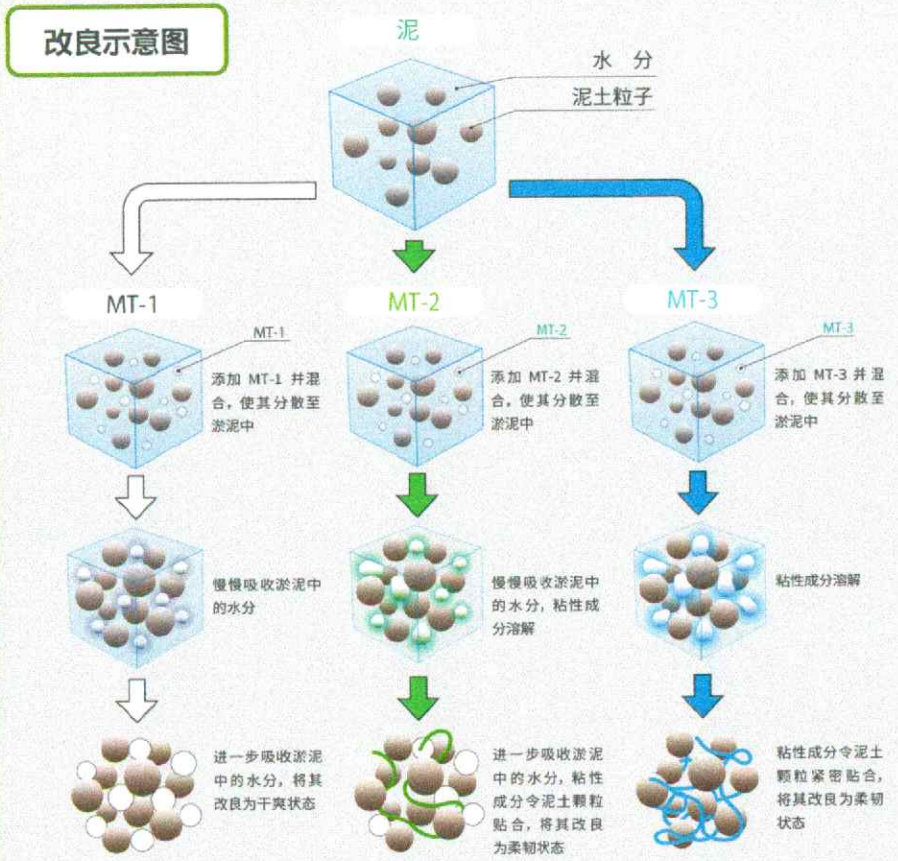

### 可与固化剂并用

本产品即使与水泥或石灰等固化剂并用，对质改效果或强度发展也几乎无影响。（MT-1 除外）


### NETIS 注册产品

本产品是在负责管辖日本建筑工程的国土交通省下新技术注册系统（NETIS）注册的产品。

## 改良示意图




## 若将 MT 处理土用于填筑材等

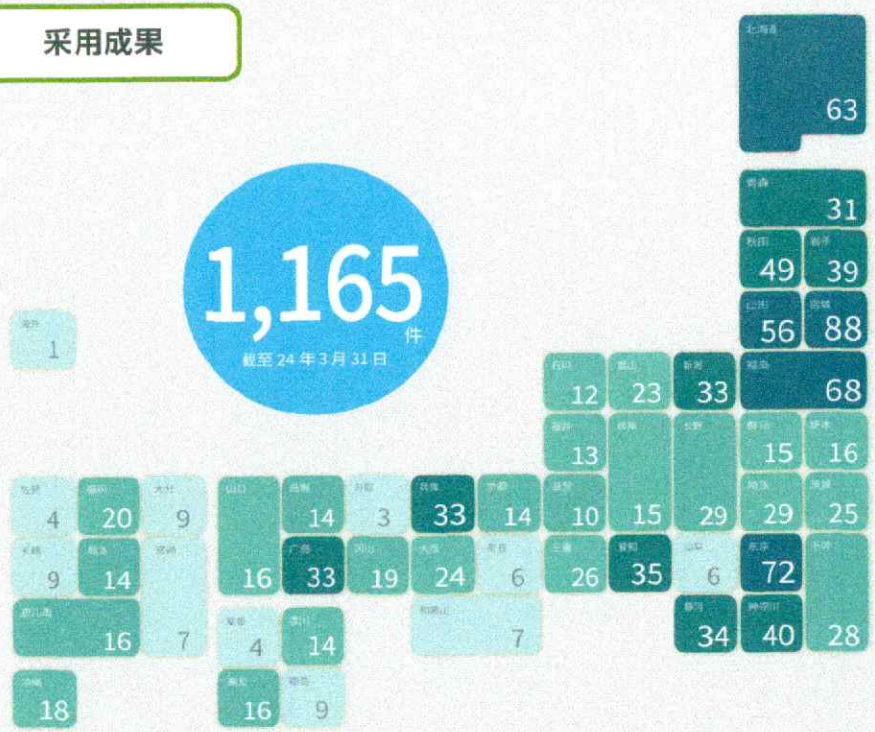
MT系列产品通过吸收淤泥中的水分将其改良成可运输状态，因此刚改良后几乎没有强度。
将MT处理土用作填筑材料等时，请进行以下(1)～(3)中的任意一项处理，并根据用途检查质量。

（1）将 MT 处理土晒干


（2）将 MT 处理土和优质土混合


（3）将 MT 处理土用水泥和石灰等改良

## 采用成果




## 累计出货数量

category 1

# 水坝工程、水池改造工程

## ○水坝堆积土

本工程是为与新水坝建设相关的替换道路安装桥墩的工程。用 MT-2 改良堆积在水坝里的土砂后，立即运至数公里外的临时堆放场。






## ○水池堆积土

本工程是水池堤身填筑及取水设施的修筑工程。用 MT-1 改良堆积在水池内的淤泥后，立即运至 10 公里外的泥砂处理场。





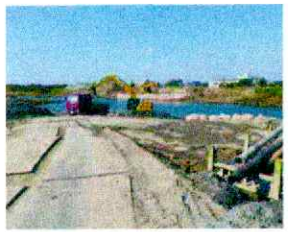



category 2

# 河道整治工程、港湾疏浚工程

## ○河道疏浚土

本工程是疏浚河道内的堆积土砂，确保河流顺畅的工程。用 MT-2 改良疏浚土砂后，立即运至约 10 公里外的临时堆放场。






## ○港湾疏浚土

本工程是渔港内堆积土砂的疏浚工程。用 MT-3 改良由抓斗船疏浚的淤泥后，立即运至约 22 公里外的临时堆放场。






## ○淤泥加压盾构剩余泥浆

本工程是为防止暴雨期间洪水涌入市区而修建蓄水管道的工程。通过并用 MT 系列与水泥类固化材料的方式，将淤泥加压盾构法产生的剩余泥浆运出工地。






## ○泥浓式顶管剩余泥水

本工程是从巨型太阳能发电设施到工业园区的电力管道埋设工程。用 MT-1 改良泥浓式顶管法产生的剩余泥浆后，立即运输至中间处理设施。










## ○打桩淤泥

本工程是东京都内的公寓建设工程。用 MT-2 对摩擦桩施工过程中产生的含水泥淤泥进行改良后，立即运至工地内的临时堆放场。






## ○打桩淤泥

本工程是排水泵站建设工程。用 MT-2 改良中掘工法打桩产生的淤泥后，立即运至临时堆放场。






## Product Lineup

| Product name | MT-1 | MT-2 | MT-3 |
|---|---|---|---|
| | Freshwater type<br>MT-1<br>  <br>Suitable for mud not containing cement or seawater | All-purpose type<br>MT-2<br>  <br>Suitable for all types of mud | Sea water type<br>MT-3<br>  <br>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/m3 | Approx. 1 to 5kg/m3 | Approx. 1 to 5kg/m3 |
| 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.<br>○ 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<br>○ Requires sufficient mixing because product effect is generated when dissolved ingredients entangle with soil particles.<br>○ Dust suppression treatment reduces scattering, even on windy sites. | ○ Improves viscosity in mud and gives it a soft, cohesive consistency<br>○ Requires sufficient mixing because product effect is generated when dissolved ingredients entangle with soil particles.<br>○ Dust suppression treatment reduces scattering, even on windy sites. |
| Applicable soil types | River dredging soil<br>Excess muddy water from jacked shield construction<br>Reservoir sediment<br>Mud excavated from construction sites etc.<br>Mud generated by extreme rain events etc.<br>All types of construction mud | Soil dredged from rivers and portsExcess<br>Muddy water from jacked shield construction<br>Reservoir sediment<br>Mud excavated from construction sites etc.<br>Mud generated by extreme rain events etc.<br>All types of construction mud<br>Ground improvement and piling mud | Harbor dredging soil<br>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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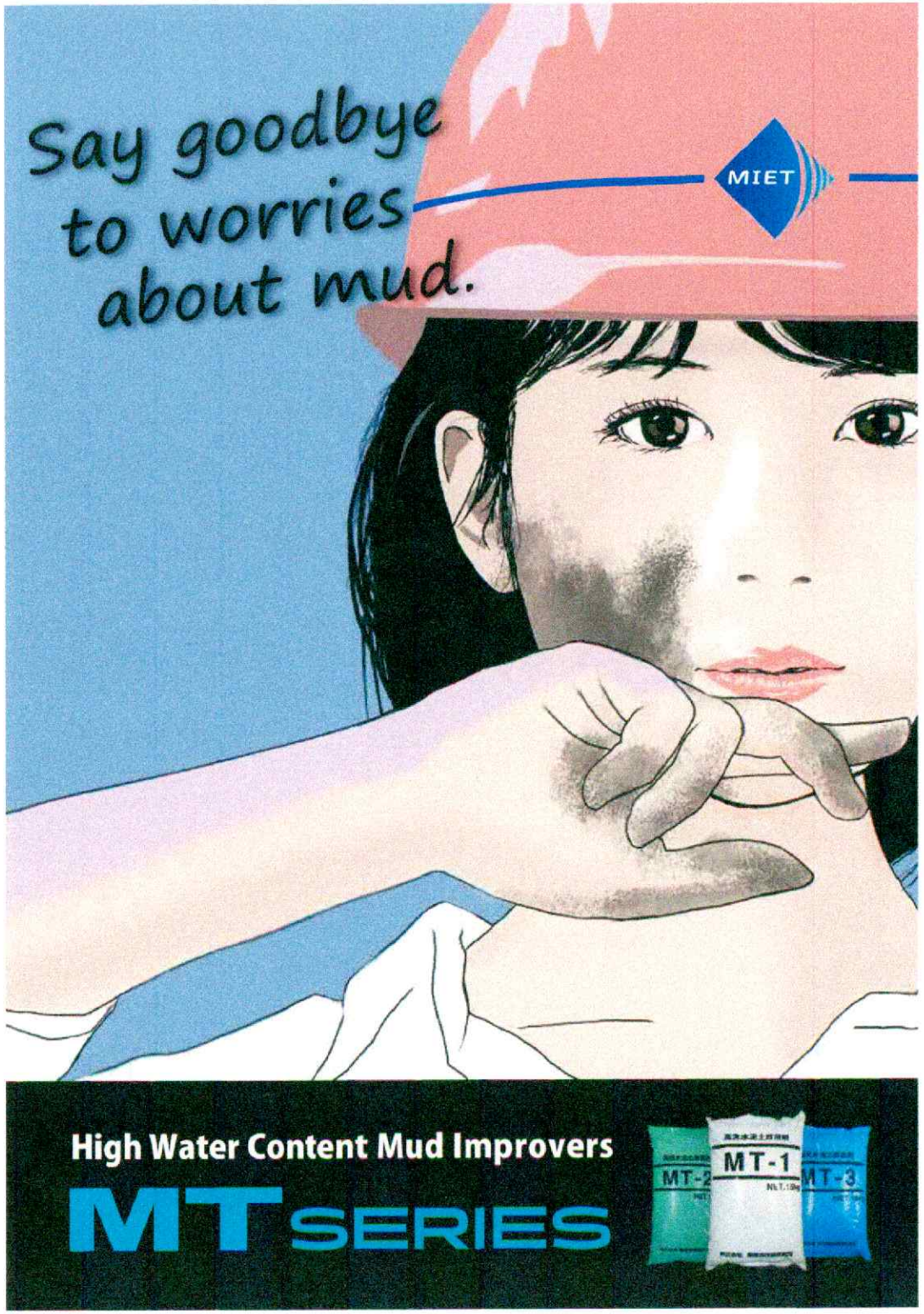
Amended in July 2024.

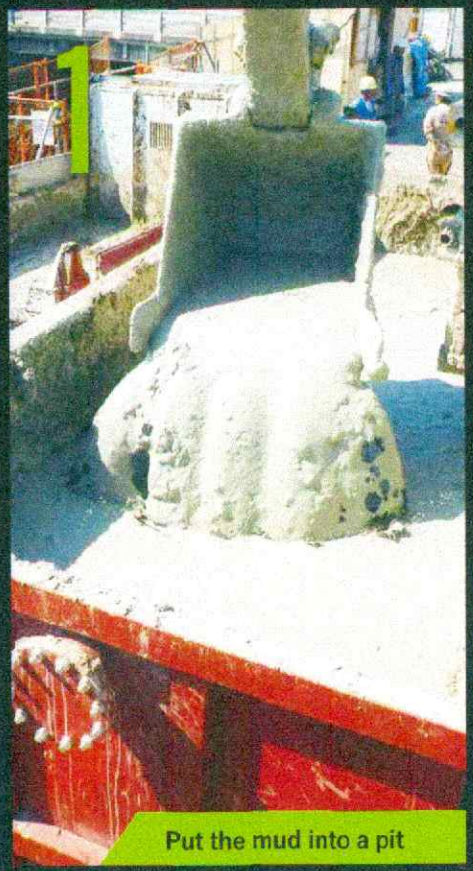


# A new option for transporting mud


## 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.



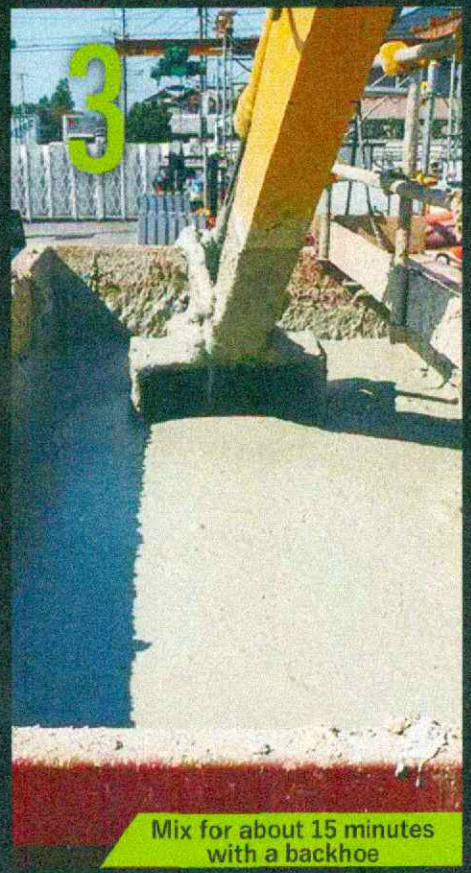
Put the mud into a pit

Add MT Series

## 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.

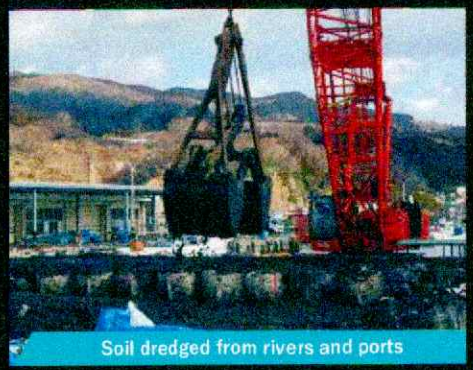


Mix for about 15 minutes with a backhoe

Transport by dump truck

# 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

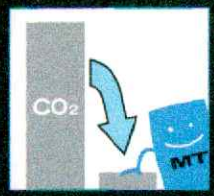
The products improve mud at very low additive amounts of 1 to 8kg/m3.


### 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.




### $CO_2$ emission reduction

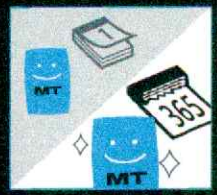
Compared to transporting mud treated with cement or lime, the products can reduce $CO_2$ emissions by about 90%.

### 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.

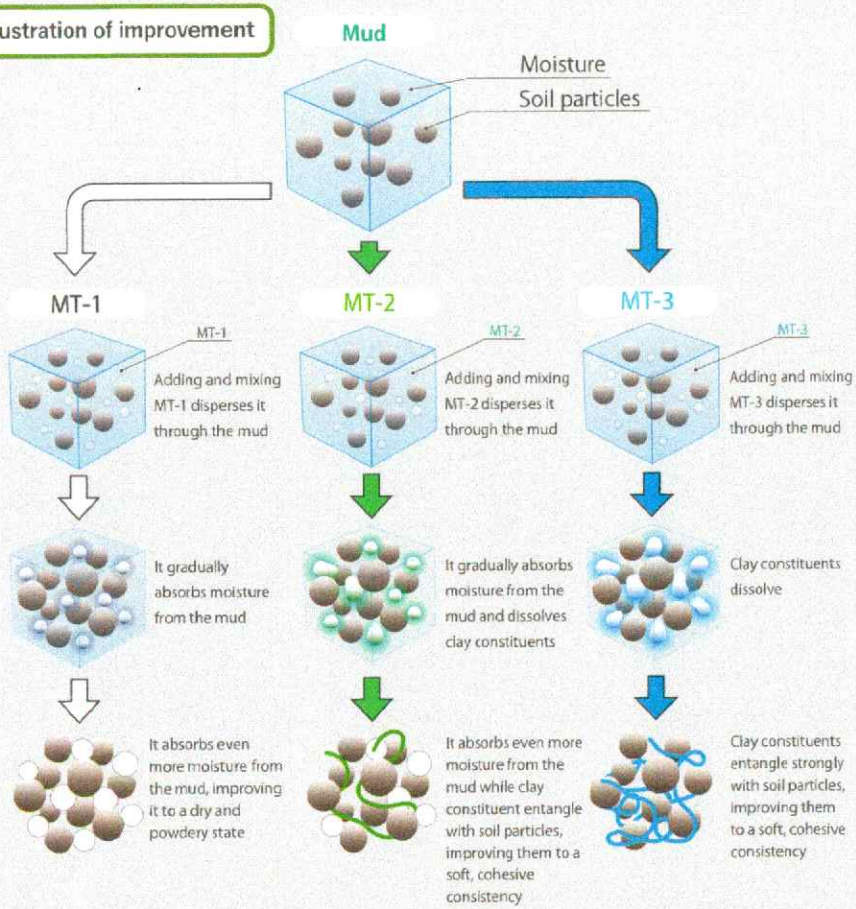

### Usable in combination with solidifying material

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

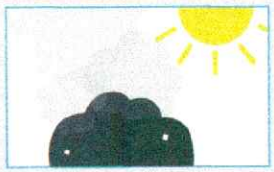
The products are registered under the New Technology Information System (NETIS) of the Ministry of Land, Infrastructure, Transport and Tourism, the ministry with jurisdiction over construction work in Japan.

## Illustration of improvement




## When using MT-treated soil as embankment material etc.

MT Series products that absorbs 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

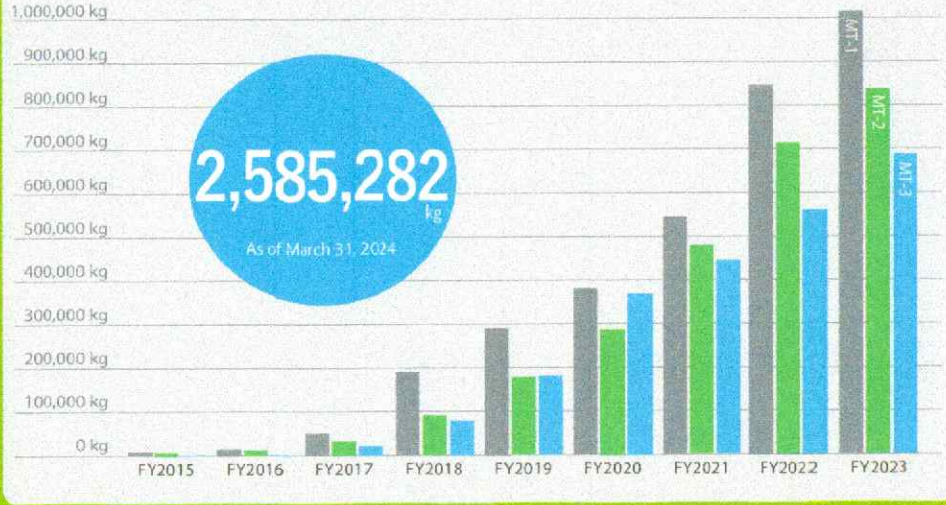

(2) Mix improved soil with MT-treated soil


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



## Hiring record


## Cumulative shipment volume



## 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.