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Comments or inquiries:

Handling Instructions

- Please read the catalogs, technical data, SDS and other information prior to use of our products.
- The data provided by this catalog are not specifications.
- Be sure to test the product at your firm prior to use to confirm that it meets your requirements.
Please note that we do not guarantee that applications and methods of use introduced here will not conflict with any patent.
- Shin-Etsu Polymer's products have been developed for general industrial use. Under no condition shall they be used in health care or other specialized applications.
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Materials for Infrastructure Maintenance General Catalog



Products for Our Future

ShinEtsu Maintenance Materials

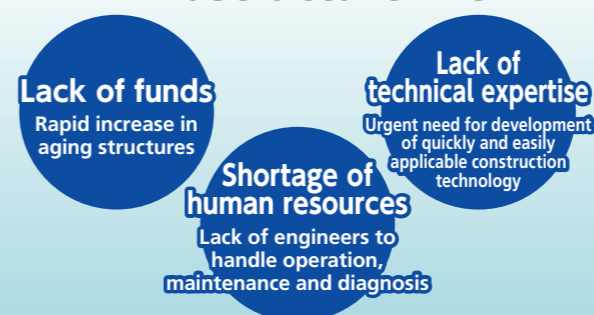
Silicone Products for Use in Maintenance Work

There is such a great need for maintenance work that it is impossible to classify. And, since maintenance work is performed when the structure or facility is in use, and differ from new construction, it requires materials and methods that can be quickly and simply applied. Silicone products can easily be molded into complex shapes, have excellent resistance to weather and vibrations and a wide operating temperature range, which makes them ideal for use in maintenance work.

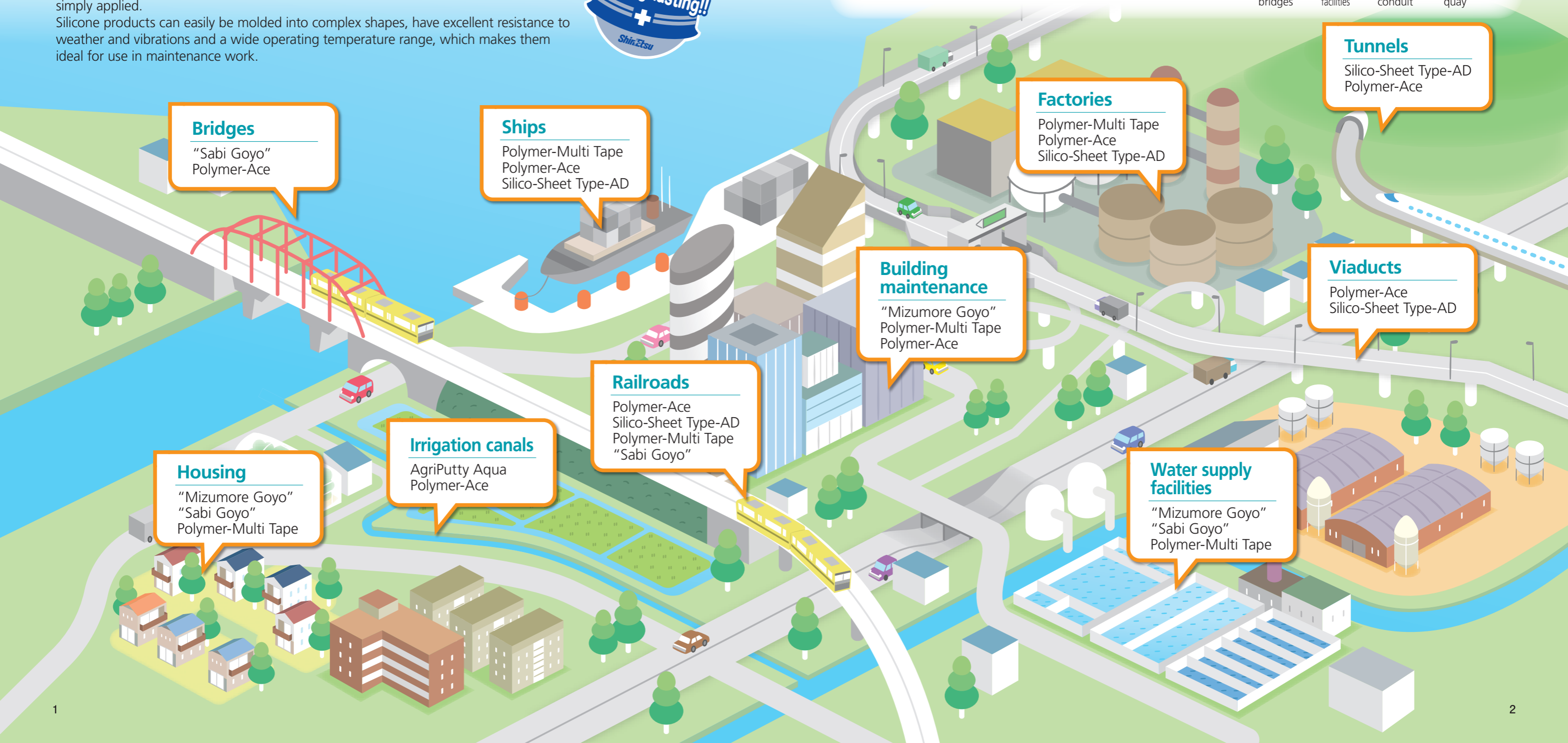
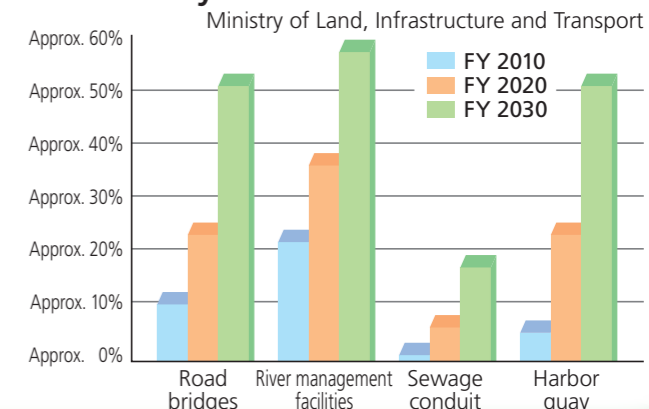


Rapidly aging infrastructure

Issues in extending infrastructure life



Ratio of 50-year or older infrastructure



Bridges

"Sabi Goyo"
Polymer-Ace

Ships

Polymer-Multi Tape
Polymer-Ace
Silico-Sheet Type-AD

Factories

Polymer-Multi Tape
Polymer-Ace
Silico-Sheet Type-AD

Tunnels

Silico-Sheet Type-AD
Polymer-Ace

Building maintenance

"Mizumore Goyo"
Polymer-Multi Tape
Polymer-Ace

Viaducts

Polymer-Ace
Silico-Sheet Type-AD

Railroads

Polymer-Ace
Silico-Sheet Type-AD
Polymer-Multi Tape
"Sabi Goyo"

Housing

"Mizumore Goyo"
"Sabi Goyo"
Polymer-Multi Tape

Irrigation canals

AgriPutty Aqua
Polymer-Ace

Water supply facilities

"Mizumore Goyo"
"Sabi Goyo"
Polymer-Multi Tape

Corrosion prevention

Steel structures / Pipes ◀

Anti-deterioration

Concrete structures / Cables ◀

Leak prevention

▶ Pipes / Tanks

Crack repair

▶ Roads / Waterways / Paved surfaces



Adhesive

Polymer-Ace has a clay-like consistency that hardens when exposed to ambient temperature and moisture in the air after being applied to an adherend. It exhibits a rubbery elasticity after hardening.



Pressure-sensitive adhesive

The adhesive layer of Silico-Sheet Type-AD that has been applied to an adherend can also be removed from it. The soft texture of both surfaces before and after application of the adhesive is the same.



Self-fusing tape

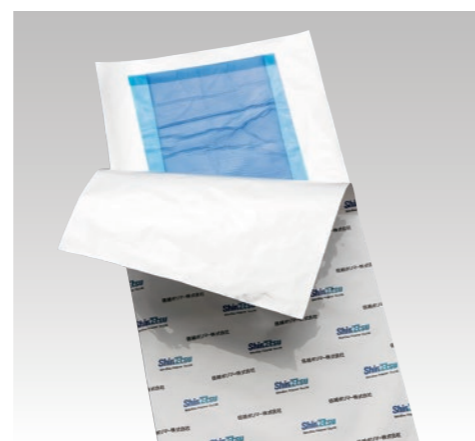
Polymer-Multi Tape, "Mizumore Goyo" and "Sabi Goyo" do not use any pressure-sensitive adhesive and adhesive agents, but the wound tape fuses to create a single solid layer that cannot be removed.

Silicone adhesive sheets

Polymer-Ace® UG

Easily creates high-performance silicone coating on complex shapes

Polymer-Ace UG is an adhesive silicone rubber manufactured from silicon. All you have to do is clean the surface before attachment. The film then reacts with ambient temperature and air moisture to harden creating a bond. Without the need for special tools or strenuous effort, this coating enables easy on-site repairs and has a proven track record of making water-leak repairs with excellent resistance to water, heat, cold and weather in infrastructure and buildings. It can be used for bonding FRP, metals (iron and stainless steel) or glass and wood.

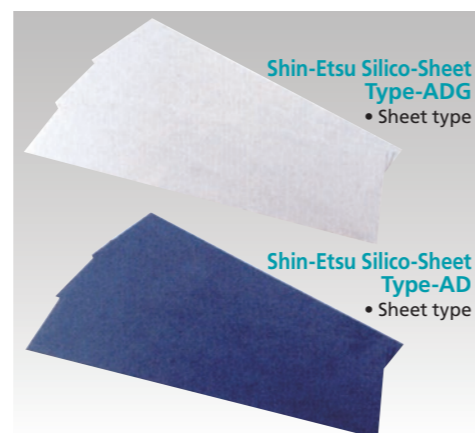


Water-proof silicone adhesive sheets for construction and engineering use

Shin-Etsu Silico-Sheet Type-AD

This tape is registered as TH-140017-A in the Ministry of Land, Infrastructure and Transport's New Technology Provision System NETIS.

"Shin-Etsu Silico-Sheet Type-AD" and "Shin-Etsu Silico-Sheet Type-ADG" are products developed for construction and engineering use. "Shin-Etsu Silico-Sheet Type-AD," a patented adhesive (No. 5765268), is the ideal silicone adhesive sheet for use "in the water proofing and rust prevention method of DuraBarriers using silicone adhesive sheets" and is registered as TH-140017-A in the New Technology Provision System NETIS. And "Shin-Etsu Silico-Sheet Type-ADG" is a silicone adhesive sheet reinforced by glass cloth suitable for use in applications where robustness is required.



Self-fusing silicone rubber tape

Polymer-Multi Tape W25, W50

Just winding the tape round the pipe will stop metal corrosion for the long term. A versatile product that can be used to prevent water leaks and rust and as an insulating coating, or a means to hold items together, to create non-slip surfaces or to protect against ultraviolet radiation.

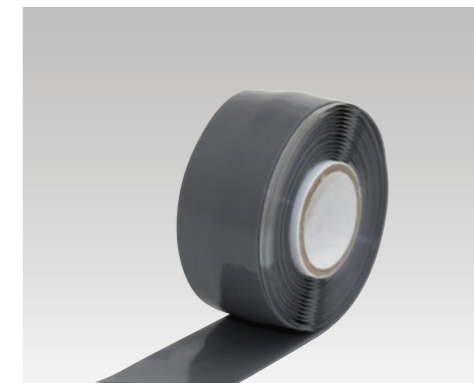
By stretching and winding the tape around the repair location, the silicone layers will fuse together to create a single solid layer. Since adhesive and plasticizing agents are not used, no sticky residue is left behind when the pipes are removed from each other. The excellent weather resistance of the silicone material will ensure long-lasting performance.



Self-fusing silicone rubber tape

"Mizumore Goyo"®

Just wind the tape around the pipe or other leaking area and it will immediately stop leaking. It can be used to stop leaks even when water is gushing out. Since it is the tensile force of tightly wound tape that stops the leak, it can be used for a great variety of pipes. The layers of wound tape fuses together creating a seal that is not easily ruptured. However, it can easily be removed using a cutter. Since no adhesive and plasticizing agents are used, there is no sticky residue on the pipes when they are removed from each other. Silicone rubber possesses high durability and weather resistance and its resistance to heat and cold are also high and can be used in a wide temperature range from -50°C to 200°C.



Self-fusing corrosion prevention tape

"Sabi Goyo"®

Just winding the tape round the pipe will stop metal corrosion for the long term.

The self-fusing corrosion prevention tape "Sabi Goyo" is silicon tape developed to prevent corrosion around pipe joints. (We have together with East Japan Railway Company applied for a patent for this product.) Used on metal pipes outdoors and pipe joints will prevent metal rust for a long period of time. By stretching and winding the tape around the repair location, the silicone layers will fuse together to create a single solid layer. Since adhesive and plasticizing agents are not used, no sticky residue is left behind when the pipes are removed from each other. The excellent weather resistance of the silicone material will ensure long-lasting performance.



Epoxy resin sealing material

AgriPutty Aqua

It is a great help in performing irrigation canal repair work!!

AgriPutty Aqua is an epoxy resin developed as a sealant to repair cracks in irrigation canals. It can be used for adhesion on wet surfaces and even under water making it an easy-to-use resin type sealant.

Feature

- Hardens under water
- This product has a putty-like (clay-like) consistency that facilitates work on walls or under water as it does not drip or run during application.
- It has good adhesion to concrete and excellent compressive strength
- As the resin (A component) is mixed with a hardener (B component) in a 1:1 ratio, it is easy to use.
- It does not require a primer, which simplifies the process



A Combination of Processes Enables Handling of a Variety of Situations

Stopping water leaks from joints in viaducts

- ◆Repairing water leaks in viaduct joints
- ◆Used for repairing joints in Shinkansen viaducts
- ◆The repairs must be performed promptly and must be resistant to cold and vibrations.

Product used Polymer-Ace, Silico-Sheet Type-AD

Polymer-Ace and Silico-Sheet Type-AD



Repairing concrete cracks

- ◆Repairing water leaks from cracks and joints in irrigation canals

Product used AgriPutty Aqua

AgriPutty Aqua



Rustproofing pipes and joints

- ◆Used for gutter pipe repairs when there is not enough space to use self-fusing tape

Product used Polymer-Ace, Silico-Sheet Type-AD

Polymer-Ace and Silico-Sheet Type-AD



Repairing water leaks from gutter seams

- ◆Repairing water leaks from gutter seams

Product used Polymer-Ace

Polymer-Ace

The maintenance that needs to be done varies with the situation and state of aging. It is not design skills that are required, but skills to effectively cope with the repair needs of specific infrastructure. A combination of adhesives and pressure-sensitive adhesives such as Polymer Ace UG makes it possible to flexibly handle complex situations. No cumbersome tools are necessary. Please feel free to consult us for more information.

Adhesive

Pressure-sensitive adhesive

Self-fusing tape

Example of pipe corrosion prevention

- ◆Winding tape round the pipe will stop rust for the long term. Product used: Silico-Sheet Type-AD / "Sabi Goyo"

Product used Silico-Sheet Type-AD / "Sabi Goyo"

Silico-Sheet Type-AD and "Sabi Goyo"



Repairing a water leak in a resin pipe flange

- ◆Water-proofing a leaking flange
- ◆The putty-like consistency of Polymer-Ace makes it possible to perfectly seal cracks even in even deformed areas.

Product used Polymer-Ace

Polymer-Ace



Countermeasures to prevent formation of icicles from joints in viaducts

- ◆Repairing water leaks in viaduct joints

Product used Polymer-Ace

Polymer-Ace



Example showing repair of leaking pipe

- ◆"Mizumore Goyo" has excellent durability, heat resistance and cold resistance and by wrapping it tightly over a crack or opening, the tensile force of the rubber will stop water or liquid leaks

Product used "Mizumore Goyo"

Mizumore Goyo