



Ground Stabilization

Solutions to consolidate soils, fill cavities,
create cut-off curtain walls and seal-off water



- ▶ Soil consolidation
- ▶ Structural underpinning
- ▶ Ground & rock stabilization
- ▶ Soil & rock injection
- ▶ Cut-off curtain walls
- ▶ Void filling
- ▶ Fissure grouting

Waterproofing

Leak Sealing

Ground Stabilization

Concrete Admixtures

Construction and Repair

Tunnelling and Mining

Equipment



Specialists in Soil Consolidation



TAM Ground Stabilization

A package of solutions designed to consolidate soils, fill cavities, create cut-off curtain walls, seal-off water and add strength to load bearing ground.

TAM International is a world leader in specialist construction chemicals and systems for soil consolidation, civil construction, mining, tunnelling, underground construction and the general building sectors.

The company specialises in problem-solving technologies associated with ground engineering, water penetration, underground works, waterproofing and the repair and protection of reinforced concrete.

TAM's products and systems provide comprehensive solutions designed to meet the most demanding conditions.



This brochure contains details of TAM's ground consolidation, soil stabilization and void-filling products. Individual data sheets are available in each case and these are available through your local TAM office, distributor or applicator. Alternatively, they can be downloaded from the company's website -

“ The widest selection
of ground stabilization
solutions available ”

www.taminternational.com

TAM's goal is to supply the highest quality solutions, together with market leading technical support to our valued customers around the world.



▷ TAM Ground Stabilization

The integrity of many underground structures, excavations and foundations relies, in part, on the surrounding soil types, the condition of rock and the level and type of contaminants which exist in the immediate vicinity.

Typical problems include the ingress of water (and water-borne contaminants) into excavations, tunnels, shafts and foundations and the need to consolidate or reinforce weak rock or soil types before, during and after civil engineering works.



In order to meet the various needs of the industry, TAM has developed a wide range of ground stabilization products which include -

- ▶ Microfine and ultrafine cements
- ▶ Colloidal silica gels and binders
- ▶ Silicates
- ▶ Acrylic gels
- ▶ Polyurethane resins



▷ TAM Ground Stabilization

TAM's ground stabilization solutions offer increased penetration capability, excellent binding characteristics and are environmentally friendly.

Systems can be adjusted to specific site and environmental conditions to enable greater control during the execution of the work. This is especially important in areas of the world where high temperatures would otherwise interfere with the installation process.

Typical product applications are shown below:



- ▶ Prevention of extreme water ingress
- ▶ Creation of cut-off walls
- ▶ Underpinning foundations and lifting sunken slabs
- ▶ Pre-injection and consolidation of various soil types (sand, CDG, etc.)
- ▶ Improvement of ground bearing capabilities
- ▶ Rockmass and rock fissure grouting
- ▶ Grouting of gravel or decayed rock
- ▶ Consolidation of ground anchors
- ▶ Void and fissure filling
- ▶ Post excavation injection
- ▶ Sealing against migration of water



▷ TAM Ground Stabilization

Product summary and selector

TamAcryl 1000

A two-component, water based, ultra-low viscosity hydrophilic acrylic grout which, when set, forms a resilient gel. Adjusting the amount of accelerator and hardener will vary the gel time to enable greater on-site control. It will swell up to 20% when in contact with water (including mineral and saline water), and is flexible, accommodating a degree of movement. It is also potable water certified.

Typical applications:

- ▶ Void-filling in fractured rock
- ▶ Soil / sand stabilization
- ▶ Sealing underground structures
- ▶ Tightening up after cement grouting

TamCrete 400CS

A single-component, environmentally-friendly, ultra low-viscosity colloidal silica. By adjusting the accelerator dosage, it can be used where slow migration and penetration are required. It provides excellent adhesion to wet/saturated surfaces.

Typical applications:

- ▶ Pre-injection of sand, silt-strata and rock
- ▶ Consolidation of sands and soils
- ▶ Water-sealing and tunnel waterproofing
- ▶ Passive ground stabilization

TamCrete SS

A two-component, environmentally-friendly, low viscosity sodium silicate. By adjusting the accelerator dosage, it can be used where slow migration and penetration are required.

Typical applications:

- ▶ Soil stabilization and consolidation
- ▶ Water control during excavations



▷ TAM Ground Stabilization

Product summary and selector - continued

TamCrete MFC

A microfine cement for rock and soil injection. It achieves initial and final sets faster than OPC and other microfine cements. This cement-based grout is composed of super-fine particles (100% < 40 microns).

Typical applications:

- ▶ Post excavation injection
- ▶ Stabilizing and consolidating all types of earth foundations
- ▶ Weak/fractured rock
- ▶ Creation of cut-off walls
- ▶ Groundwater sealing
- ▶ Cracked or porous concrete

TamCrete MFC SR

A microfine, sulphate resistant, portland cement for rock and soil injection. It is ground from pure Portland cement clinker to achieve a Blain's surface of 650m²/kg. This cement-based grout is composed of super-fine particles (100% < 30 microns).

Typical applications:

- ▶ Resistant to sulphates
- ▶ Post excavation injection
- ▶ Stabilizing and consolidating all types of earth foundations
- ▶ Weak/fractured rock
- ▶ Creation of cut-off walls
- ▶ Groundwater sealing
- ▶ Cracked or porous concrete

TamCrete UFC

A cement-based grout composed of micro-fine particles (99% <15 microns). The product exhibits faster initial and final sets, allowing increased productivity.

Typical applications:

- ▶ Post excavation injection
- ▶ Stabilizing and consolidating all types of earth foundations
- ▶ Weak/fractured rock
- ▶ Creation of cut-off walls
- ▶ Groundwater sealing
- ▶ Cracked or porous concrete



▷ TAM Ground Stabilization

Product summary and selector - continued

TamPur 110

A hydroactive, single-shot, low-viscosity polyurethane based on MDI, polyether polyols and an amine catalyst. Adjusting the amount of catalyst will vary the gel time to enable greater on-site control allowing for greater penetration. The system reacts and expands on contact with water (including mineral and saline water) to form a rigid foam.

Typical applications:

- ▶ Underpinning foundations
- ▶ Soil stabilization
- ▶ Injection into saturated ground
- ▶ Consolidation of ground anchors
- ▶ Void-filling

TamPur 115

A two-component, low-viscosity polyurethane/silicate grout which reacts when injected to form an insoluble solid mass with excellent mechanical resistance.

Typical applications:

- ▶ Consolidation of fractured rock
- ▶ Grouting of gravel/decayed rock

TamPur GeoTek

A two-component, low-viscosity, environmentally-friendly, hydrophobic polyurethane grout based on polyol and polymeric MDI components. When injected it forms a tough, rigid foam and can expand up to 25 times its original volume.

Typical applications:

- ▶ Underpinning foundations
- ▶ Lifting of sunken slabs
- ▶ Soil stabilization
- ▶ Void filling
- ▶ Consolidation of ground anchors

Always refer to individual Technical Data Sheets and Health & Safety Data Sheets for more detailed information.



▷ TAM does more than ground stabilization

TAM has over 25 years of problem-solving experience in locations around the world.



“ Our philosophy is to support
specifiers and users from
beginning to end ”

Other TAM product groups

TAM also manufactures and distributes products for -

- ▶ Waterproofing
- ▶ Leak Sealing
- ▶ Concrete Admixtures
- ▶ Construction & Repair
- ▶ Tunnelling & Mining
- ▶ Equipment

Please ask for more information or visit

www.taminternational.com

Note to Specifiers

Our objective is to provide detailed professional advice and support to specifiers and users. We achieve this through training and familiarisation programmes, through our international teams of engineers and through a network of distributors and applicators.

TAM recognises that every ground stabilization requirement is different and we will strive to ensure that the most appropriate remedial measures are made available and tailored when necessary, on every job.

Please contact your local TAM office, distributor or applicator for further advice or information.



▷ Equipment

Our extensive ranges of specialist equipment and systems are suitable for applying all TAM products and are available for sale, lease and hire.

Our equipment range has been specially designed and selected for efficiency, productivity and ease of use. We understand that appropriate reliable equipment can influence the success and outcome of a project for our customers, therefore we are committed to support you all the way.

“ We are committed
to support you
all the way ”

Our range of specialist Pumps and Accessories enables superior application of our speciality products in waterproofing, repairing, protecting and sealing.



When applying sprayed concrete for mines, tunnels and other civil engineering structures, our range of fully self-propelled, mechanized and automated spraying systems deliver high productivity, superior operator safety and outstanding quality.

To help our customers achieve successful and effective results, TAM provides full equipment servicing, including all technical aspects of pump usage and application details.



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