

Specialists in pedestrian surfaces

Cast metal stair nosings for the rail & construction industries from AATI the mass-transit stair nosing experts



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Specialists in pedestrian surfaces

- Company Overview

AATi (Antislip Antiwear Treads International) formed in 1984 and adopted the traditional London Underground cast stair tread designs, which have been an enduring and very effective feature on the UK rail network for over 50 years. The company has developed the product range to encompass DDA (Disability Discrimination Act) requirements in modern stairway design, also focusing on uses outside the traditional markets; light rail, over-ground, station terminals and a wide range of commercial and architectural applications. All products are designed and manufactured in the UK.

Why AATi - An unrivalled product offering

Functionally unsurpassed, all designs include a cast profile with encapsulated silicon carbide in the wearing surface. This ensures the pedestrian has the very best antislip foot contact on the stairway, both at initial contact and as full body load is put on to and leaves the step.

Casting the profile means that product design features are not constrained by the extrusion process and therefore standard or bespoke features can be designed into a final product, often with the benefit of 3D CAD visualisation. These two facts above allow a unique product to be developed with an architecturally functional and aesthetically pleasing appearance.

Over 50 current designs for different applications exist. Furthermore clients and their architects are welcomed to take part in this continuing research and design development procedure. Also an increasing number of retail stores and corporate businesses are requesting logos to be cast in to their stair nosing profile for individualised identity.

Saves money

'Whole of life' product philosophy, the wide range of design in four different materials ensures there is a competitive and excellently matched product for every stairway application. Cost justification is easily made due to the relative longevity of AATi products, compared to competing extruded products. Depending on footfall levels, depreciation costs and allowances for refitting, result in AATi being the selected option time after time. Product selection must always take into consideration H & S, contractor issues, passenger disruption, and service downtime.

Safety

Taking into consideration statutory requirements and client design requests, AATi has developed a stringent design philosophy; as inevitable wear takes place on all stair nosings, AATi encapsulate silicon carbide granules in the critical wearing surfaces which stops wear and polishes. Many applications in the London area in particular are now showing such products still being in place in high footfall areas for well over 40 years, but still functioning adequately despite heavy wear and still without the creation of a trip hazard.



- Wideline - Sightline 'SL3' - Sightline 'SL' - HDCT

Component failure when metal surfaces fall below the slip resistance value of 36.

SRV are only reduced after many years.



Export



Railways



Bespoke

**STOP
PRESS**

- AATi launch new business set up to divide Rail, Commercial and Overseas business management.

AATi Commercial at River Island stores!

Having placed a number of orders with AATi, River Island opened a new store at the Westfield Shopping Centre in Stratford, London. Utilising a new, and now popular, cost effective profile (SN30/60) made in Cast Iron with a phosphated surface protection treatment, giving a dark, near-black finish.

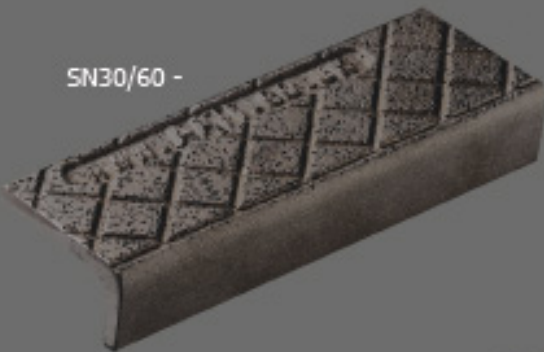
One off bespoke versions of the SN30/60 were created to form the curved surfaces at the base of the flight of stairs.

This is just one example of the increasing demand AATi are receiving for bespoke applications in the commercial sectors.

To improve its marketing and business profile AATi have established a new company - AATi Commercial Ltd to solely concentrate and venture into these often bespoke and high profile projects.



SN30/60 -



- 'SIGHTLINE' PRODUCTS

Sightline products were first created in 1997 to help highlight the critical front edge of the step for those with impaired sight. It was later in 2004 when DDA regulations formalised these designs within UK Law and Buildings regulations. The original sightline designs were therefore modified to our Sightline 3 range as shown below. Importantly, resin inserts highlighting the edges in both the step (going) and the riser (front) were introduced.



- SN93/SL3/280PE
AATi Sightline Nosing at ST. Pancras

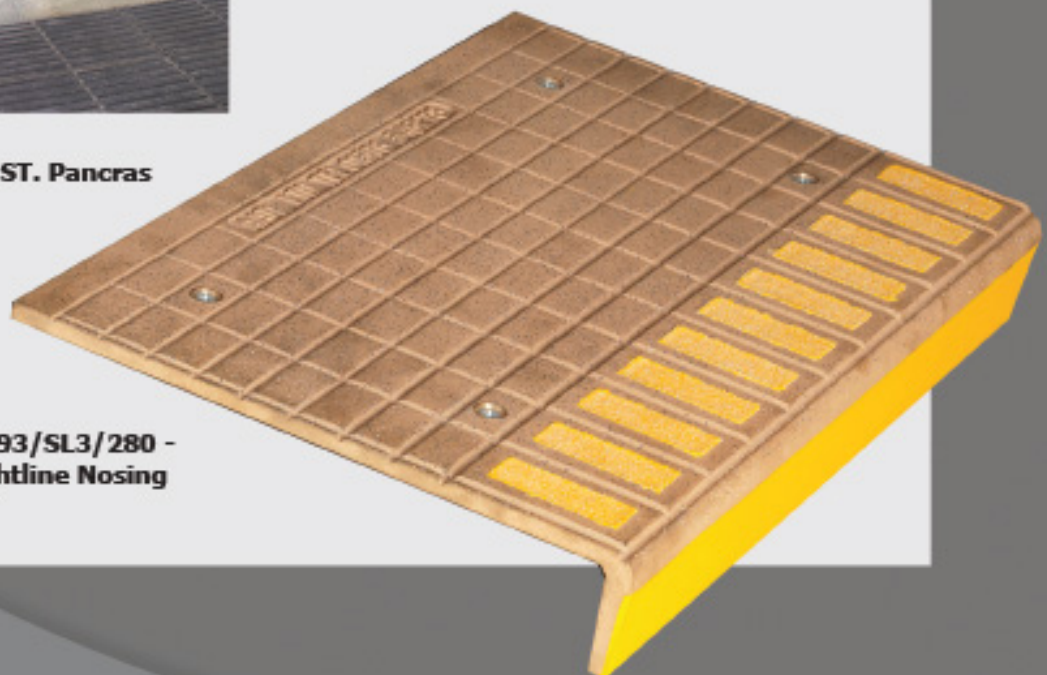
St. Pancras - Thameslink - Following AATi's long association with LUL, and other major rail developments, bespoke versions of its SN93/SL3/280PE stair nosings with plain ends and landing plates all cast in Nickel Bronze were specified for the many stairs at St. Pancras Thameslink (as pictured left).

The castings were all made and cut to specific widths & lengths, the coloured resin fill was stopped short at the ends to satisfy the architects exacting details.

Similarly bespoke nosings were then made for King's Cross Northern Ticket Hall which also included a fan shaped stair.

This is an example of the "Sightline" product range developed by AATi to meet the requirements of the London Underground.

SN93/SL3/280 -
AATi Sightline Nosing





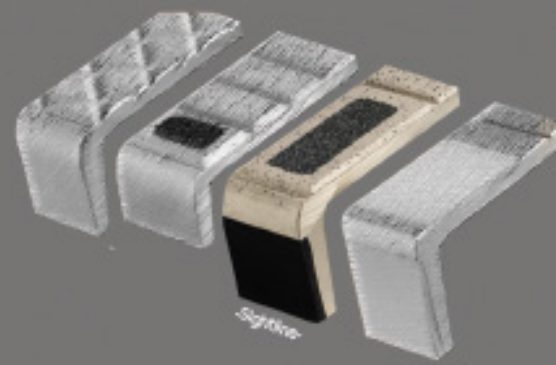
- St PANCRAS THAMESLINK



"Sightline" SN62/SL/280 with black resin infill, matching floor landing plates & tactile plates.



"Sightline SL3" SN93/SL3/280 with black resin infill.



'SIGHTLINE SL3' PRODUCTS

Item: AATi type SN93/SL3/140 -Sightline-stair nosing with silicon carbide granules cast into the metal matrix of the wearing surface. The front edge is defined by coloured abrasive inserts and a continuous coloured line along the riser face.

Dimensions: 55 x 140 x length

Materials: Nickel Bronze, Gunmetal, Aluminium. Safety yellow inserts supplied as standard. Black, white or other colours available on request.

Application: For heavily used public stairways requiring high performance, extended life stair nosings of attractive appearance. Unique tapered surface grooves and cast-in silicon carbide particles ensure safe performance in wet or dry conditions.

SN93/SL3/140



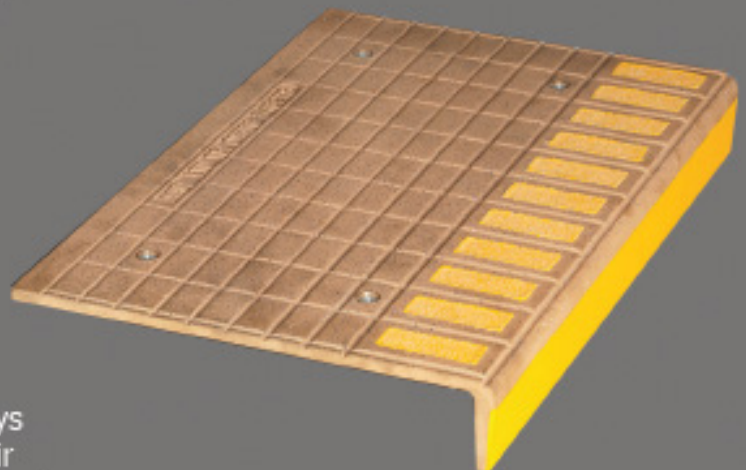
Item: AATi type SN93/SL3/280 -Sightline-stair nosing with silicon carbide granules cast into the metal matrix of the wearing surface. The front edge is defined by coloured abrasive inserts and a continuous coloured line along the riser face.

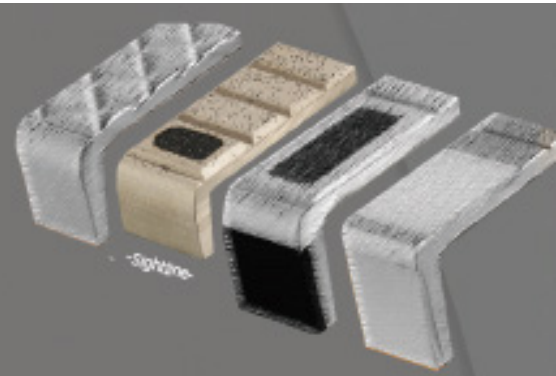
Dimensions: 55 x 280 x length

Materials: Nickel Bronze, Gunmetal, Aluminium. Safety yellow inserts supplied as standard. Black, white or other colours available on request.

Application: For heavily used public stairways requiring high performance, extended life stair nosings of attractive appearance. Unique tapered surface grooves and cast-in silicon carbide particles ensure safe performance in wet or dry conditions.

SN93/SL3/280



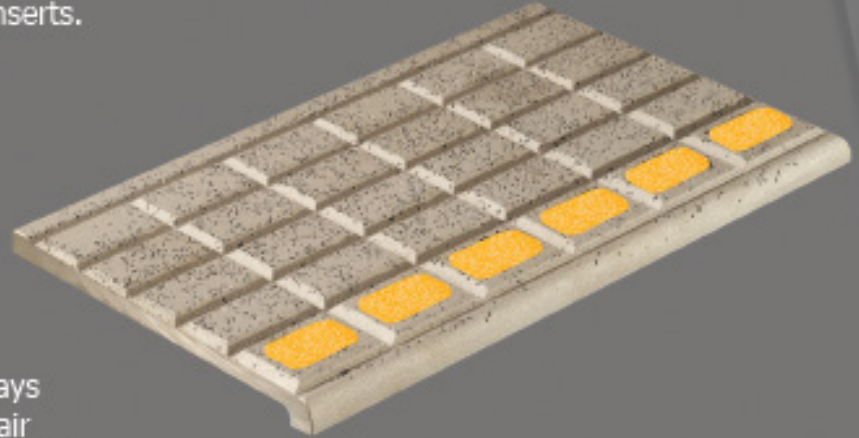


'SIGHTLINE' PRODUCTS

Item: AATi type SN32/SL/140 -Sightline- stair nosing with silicon carbide granules cast into the metal matrix of the wearing surface. The front edge is defined by coloured abrasive inserts.

SN32/SL/140

Dimensions: 16 x 140 x length



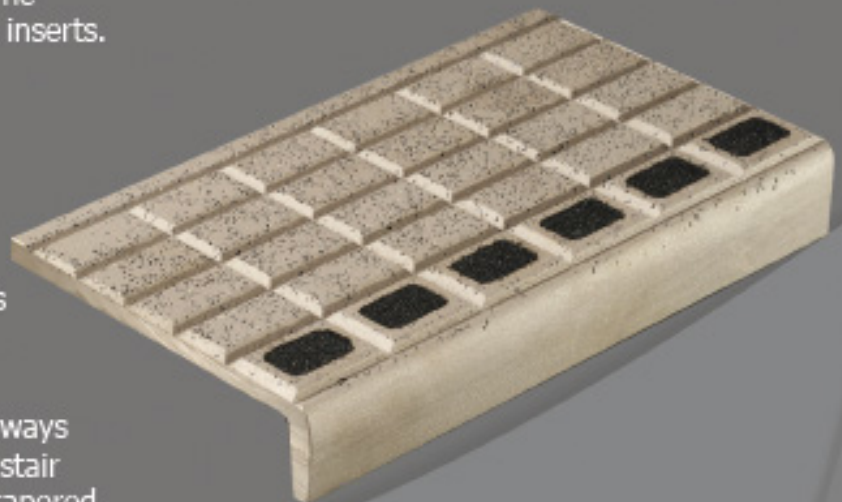
Materials: Nickel Bronze, Gunmetal, Aluminium. Safety black inserts supplied as standard. Yellow, white or other colours available on request.

Application: For heavily used public stairways requiring high performance, extended life stair nosings of attractive appearance. Unique tapered surface grooves and cast-in silicon carbide particles ensure safe performance in wet or dry conditions.

SN62/SL/140

Item: AATi type SN62/SL/140 -Sightline- stair nosing with silicon carbide granules cast into the metal matrix of the wearing surface. The front edge is defined by coloured abrasive inserts.

Dimensions: 34 x 140 x length



Materials: Nickel Bronze, Gunmetal, Aluminium. Safety black inserts supplied as standard. Yellow, white or other colours available on request.

Application: For heavily used public stairways requiring high performance, extended life stair nosings of attractive appearance. Unique tapered surface grooves and cast-in silicon carbide particles ensure safe performance in wet or dry conditions.



- 'WIDELINE' PRODUCTS

Wideline products were created in 2004 in preparation for the new Disability Discrimination Act regulations (DDA). The regulation states that there must be a means of a permanently contrasting material on both the tread and the riser to aid the partially sighted. AATi were able to design many different applications to fulfil these requirements.



Canterbury West Station

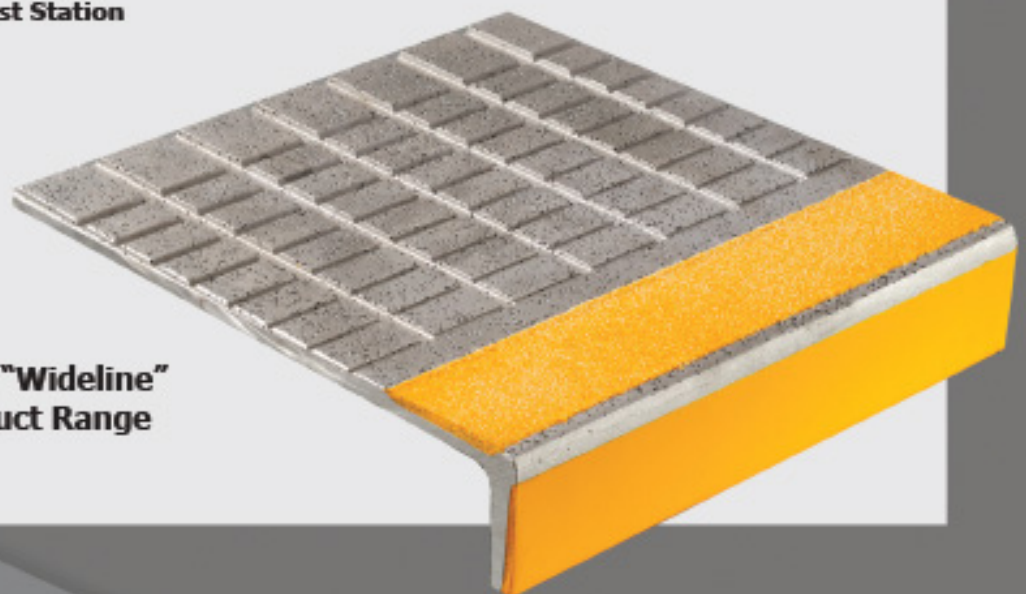
Access For All (AFA) -

AATi are pleased to have now supplied stair nosings for applications within the 'Access for All' scheme, on Canterbury West, Cambridge, Sittingbourne & Denmark Hill stations. To avoid costly mixed materials on the wearing surface, AATi supplied full step-width aluminium stair nosings, as pictured left on Canterbury - SN293/WL/307UR.

Working closely with customers AATi also manufactured a bespoke version of our standard profile SN293/WL/280B to incorporate an underside radius to suit the bend in their steelwork.

AATi stair nosings used and specified by Network Rail on the AFA bridges meet the DDA requirements, with contrasting colour resin inserts built into the leading edge of the nosings. Carbide granules cast into the nosings greatly reduces wear and also increases slip resistance.

AATi "Wideline"
Product Range



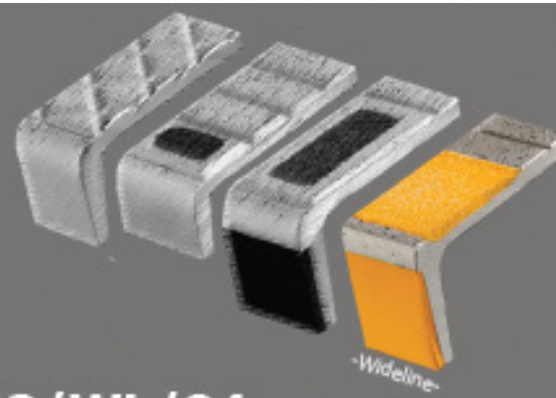


- CANTERBURY WEST STATION



"Wideline" SN293/WL/307UR with yellow resin infill.





'WIDELINE' PRODUCTS

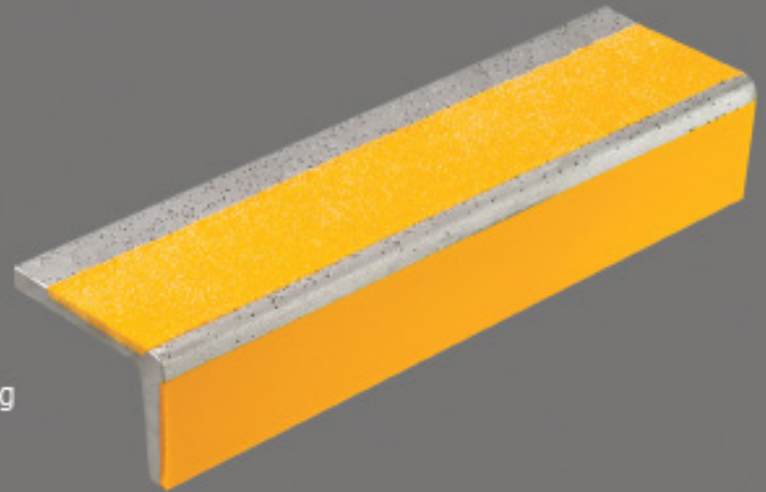
Item: Heavy Duty General Purpose AATi SN293/WL/84 Cast metal stair nosing with Silicon Carbide Granules cast into the metal matrix and "Wide line" Coloured Resin antislip Insert to Top surface and face, all designed around the requirements of the DDA.

SN293/WL/84

Dimensions: 55 x 84 x Chosen Length

Materials: Nickel Bronze, Gunmetal, Aluminium or Cast Iron. Standard Resin colours are black or yellow but other colours within the RAL and the NCS ranges are generally available.

Application: Heavy Duty General Purpose Nosing design around the requirements of the DDA and suitable for many different applications/fixing to steel, wood or concrete. It is recommended that these nosings are fully recessed into the step surface and both mechanically fixed (i.e. screwed) and bonded into position.



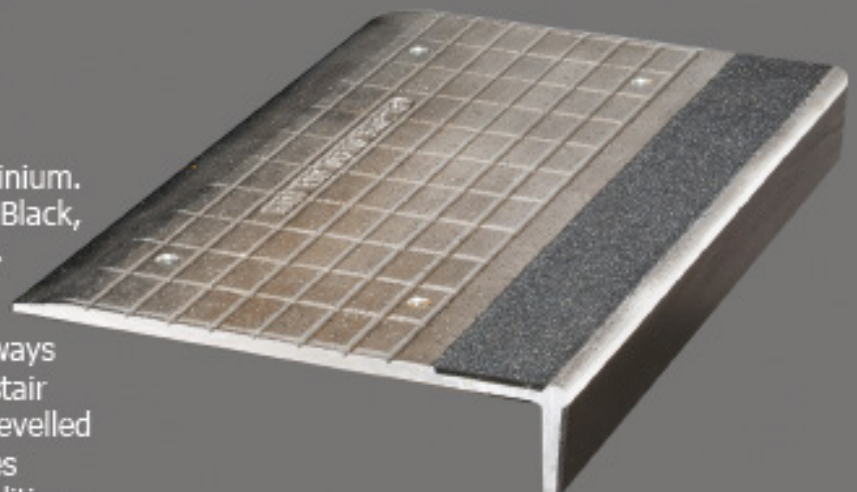
Item: AATi type SN293/WL/280B -Wide line-stair nosing with silicon carbide granules cast into the metal matrix of the wearing surface. The front edge is defined by coloured abrasive inserts and a continuous coloured line along the riser face.

SN293/WL/280B

Dimensions: 55 x 280 x Chosen Length

Materials: Nickel Bronze, Gunmetal, Aluminium. Safety yellow inserts supplied as standard. Black, white or other colours available on request.

Application: For heavily used public stairways requiring high performance, extended life stair nosings of attractive appearance. Unique bevelled rear face and cast-in silicon carbide particles ensure safe performance in wet or dry conditions.



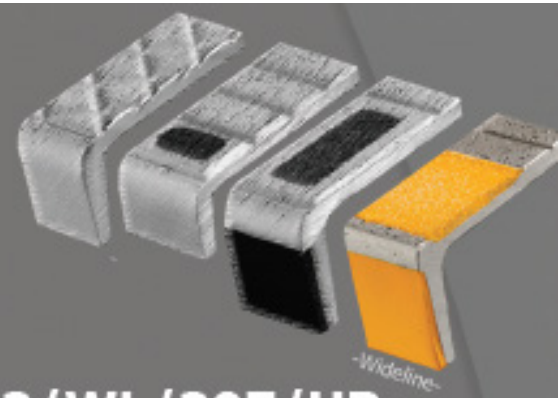
'WIDELINE' PRODUCTS

Item: AATi type SN293/WL/307/UR-wideline-stair nosing with silicon carbide granules cast into the metal matrix of the wearing surface. The front edge is defined by coloured abrasive inserts and a continuous coloured line along the riser face.

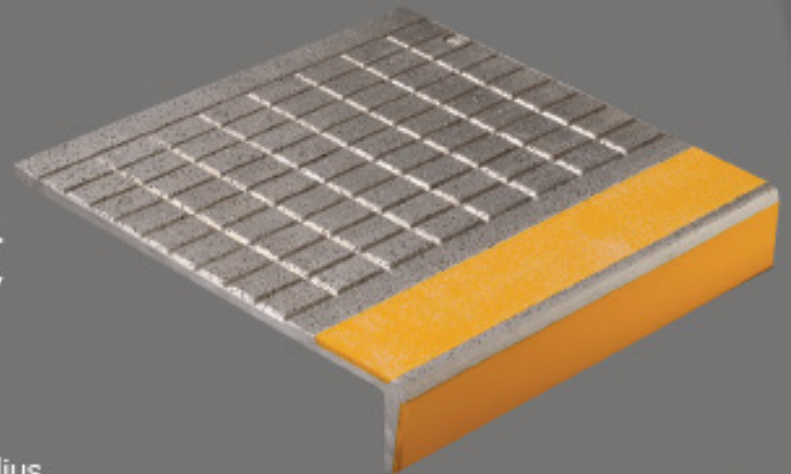
Dimensions: 55 x 307 x Chosen Length

Materials: Nickel Bronze, Gunmetal, Aluminium. Safety yellow inserts supplied as standard. Black, white or other colours available on request.

Application: For heavily used public stairways requiring high performance, extended life stair nosings of attractive appearance. The Under-Radius back edge is designed to create a better finish when a bend in a fabricated steel stair meets the underside of a nosing, specifically on applications such as AFA footbridges.



SN293/WL/307/UR



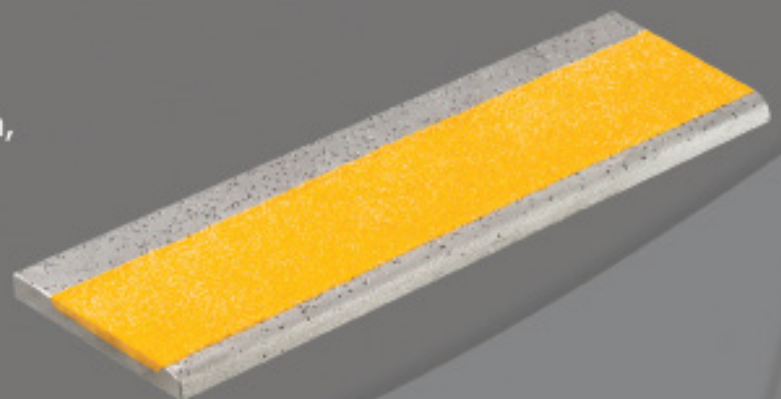
Item: AATi type SN2/WL/84 Cast Metal Stair Nosing with silicon carbide granules cast into the metal matrix of the wearing surface, and "Wide line" Coloured Resin Antislip Insert to top surface.

Dimensions: 10.5 x 84 x Chosen Length

Materials: Cast Iron, Nickel Bronze, Aluminium, Gunmetal.

Application: "Wideline" Insert is based on a mixture of Methylmethacrylate Resin with Flame Resistant Binders and Inert Colourizers - all as tested and approved to BS476, part 6, 1989 - Testing for Fire Propagation by heating. Insert also has a high silicon carbide content to provide good antislip antiwear properties.

SN2/WL/84



- 'HDLT' PRODUCTS

Heavy Duty London Transport designs (HDLT) traditionally were the standard AATi product and some examples are still widely in use after sometimes 60 years on un-refurbished stairs throughout the London Underground. HDLT nosings are now used for heritage and replacement but also in some forms for new DDA applications. If it is a conventional and rustic appearance you are looking for, AATi's HDLT range has the aesthetics to sustain natural urban beauty.



Bespoke Ventilated Stair

Knightsbridge Station - This contract required the bespoke design of 3 different castings, forming a 'ventilated' stair for the then new LUL stairway near Harrods.

The challenge was to supply a gunmetal nosing on the front part of each step with a cast iron plate behind to give colour contrast, but full coverage.

Behind that a 'toe plate' aluminium casting was positioned forming part of the riser of the step thus leaving room for the exhaust ventilation of the room under the stair.

This is an example of the "Sightline" product range developed by AATi to meet the requirements of the London Underground. There are a number of variants of this product & bespoke designs can also be developed to meet an individual customer's requirements.

**AATi "HDLT"
Product- SN9/55**

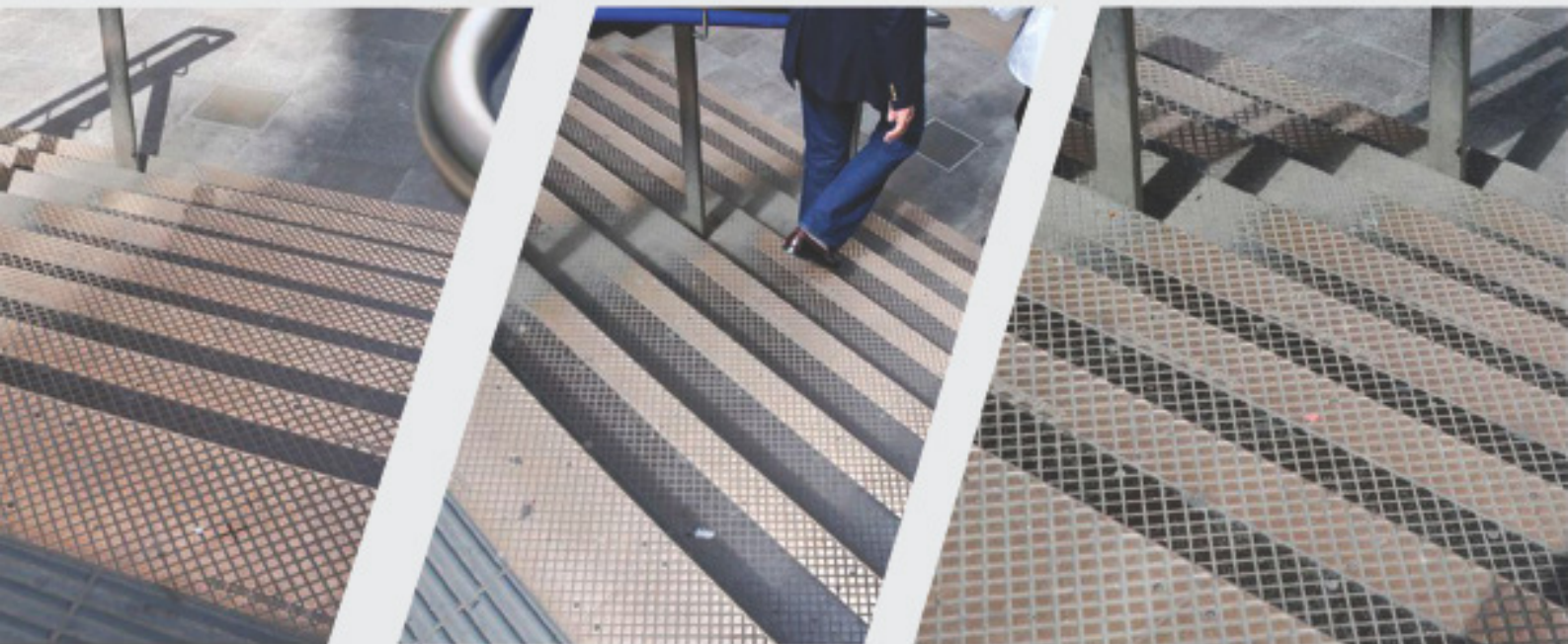


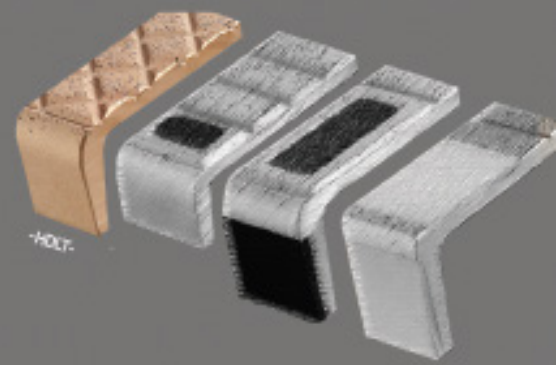


- KNIGHTSBRIDGE STATION



"HDLT" SN6/100 & SN6/280 gunmetal nosing, cast iron floor plates, & aluminium 'Toe Plates'.





'HDLT' + 'HDIT' PRODUCTS

Item: AATi type SN9/HDLT/55 Cast Metal Stair Nosing with silicon carbide granules cast into the metal matrix of the wearing surface.

Dimensions: 55 x 55 x length

Materials: Nickel Bronze, Gunmetal, Aluminium or Cast Iron.

Application: Whilst specifically designed around the physical requirements of the DDA, this stair nosing is suitable for many different applications and exhibits the same longevity and hard wearing/heavy duty characteristics as our larger profile nosings.

SN9/HDLT/55



Item: AATi type SN9/HDIT/280 Islamic Cast Metal Stair Nosing with silicon carbide granules cast into the metal matrix of the wearing surface.

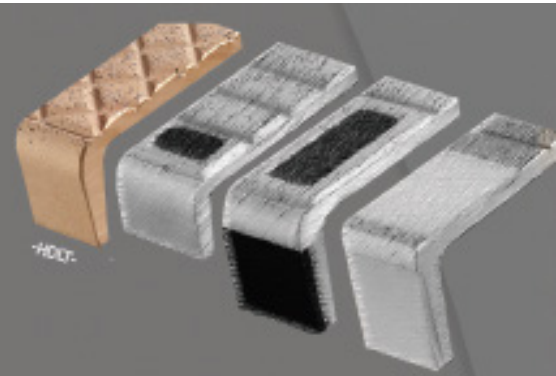
Dimensions: 55 x 280 x length

Materials: Nickel Bronze, Gunmetal, Aluminium or Cast Iron.

Application: This bespoke design incorporates hard wearing characteristics with good longevity. An Islamic pattern design is integrated into the top wearing surface. With grooves leading towards the front edge of the riser face.

SN9/HDIT/280





'HDLT' PRODUCTS

SN9/HDLT/140

Item: AATi type SN9/HDLT/140 Stair Nosing with silicon carbide granules cast into the metal matrix of the wearing surface.

Dimensions: 55 x 140 x length

Materials: Nickel Bronze, Gunmetal, Aluminium or Cast Iron.

Application: Heavily used public stairs where safety and durability are required. Special surface finish with unique tapered groove pattern ensures safety in wet and dry conditions.



Item: AATi type SN30/60 Cast Metal Stair Nosing with silicon carbide granules cast into the metal matrix of the wearing surface.

SN30/60

Dimensions: 30 x 60 x length

Materials: Nickel Bronze, Gunmetal, Aluminium or Cast Iron.

Application: For light to medium footfall applications. This nosing was designed to meet standard building regulations - BS 8300:2009 and is rapidly becoming a popular cost effective solution.

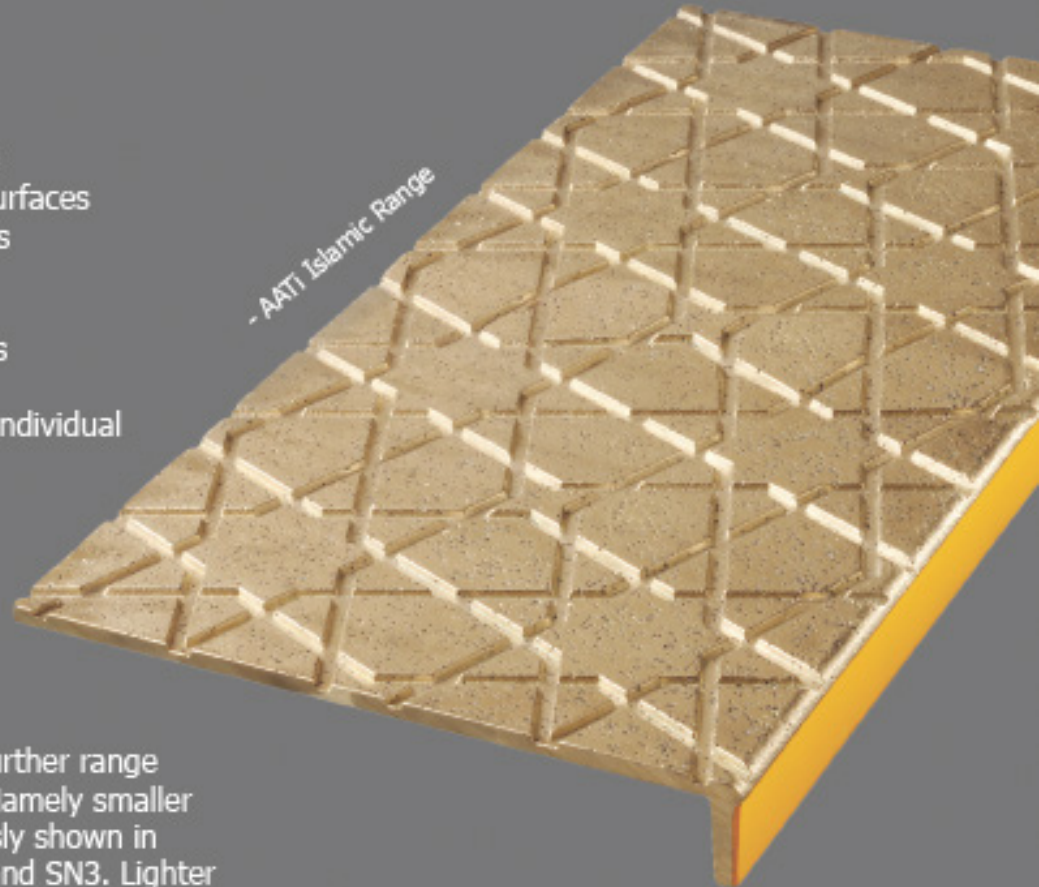
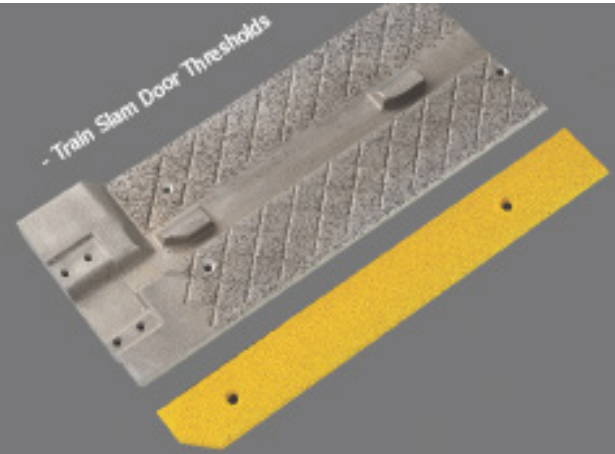


FURTHER PRODUCTS

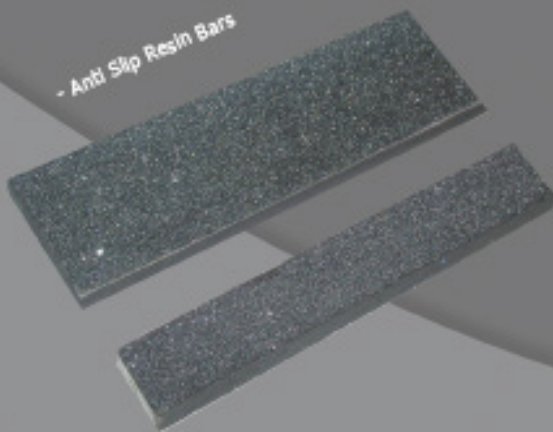
Product Range:

AATi also manufacture a wide range of further products:

- Islamic Patterned Nosings
- Tactile/Hazard Warning Surfaces
- Floor Landing Cover Plates
- Platform Edge Tiles
- Drainage Grates
- Antislip Resin Bars & Discs
- Antislip Inserts
- Bespoke products as per individual customer requirements

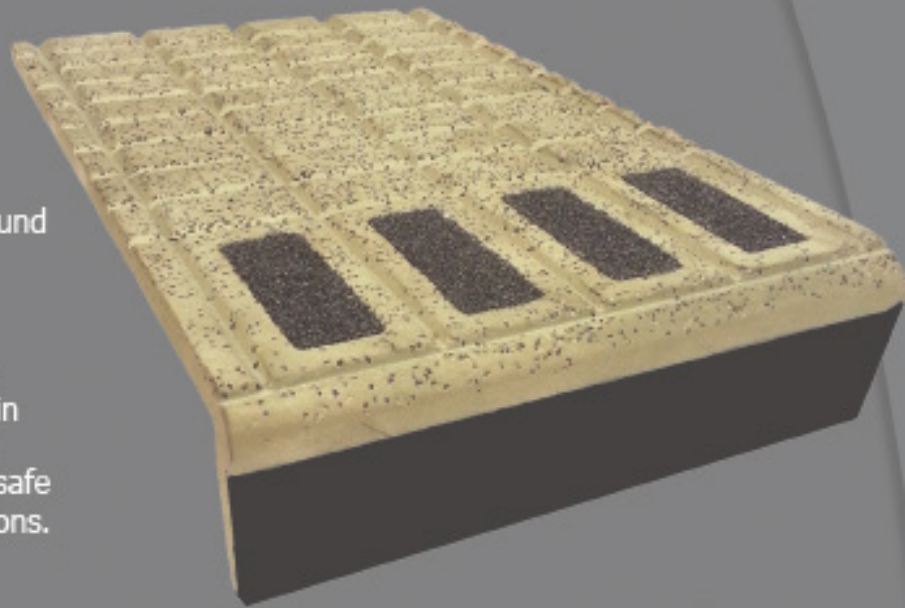


Item: Further Products: A further range of HDLT nosings are available. Namely smaller nosed variants of those previously shown in the brochure, designated SN6, and SN3. Lighter duty nosings are also available, for example SN22, SN28 & ASB series. Please enquire for further details.



SN93/SL3/280RT -

Working mutually with London Underground engineers, AATI have fashioned a new dimension to an existing product which eliminates drainage predicaments. The SN93/SL3/280RT with its unique reverse tapered surface grooves designed to drain water to the rear of the nosing, coupled with cast in silicon carbide, this ensures safe performance in both wet and dry conditions.



Materials: Nickel Bronze, Gunmetal and Aluminium.

Fig 1. Plan view of SN93/SL3/280RT



Application: For environments that are exposed to external conditions where standing water is evident.

SN93/SL3/280RT

Fixing assembly complete with stainless steel drainage gully.

Fig 2. Isometric view of drainage assembly

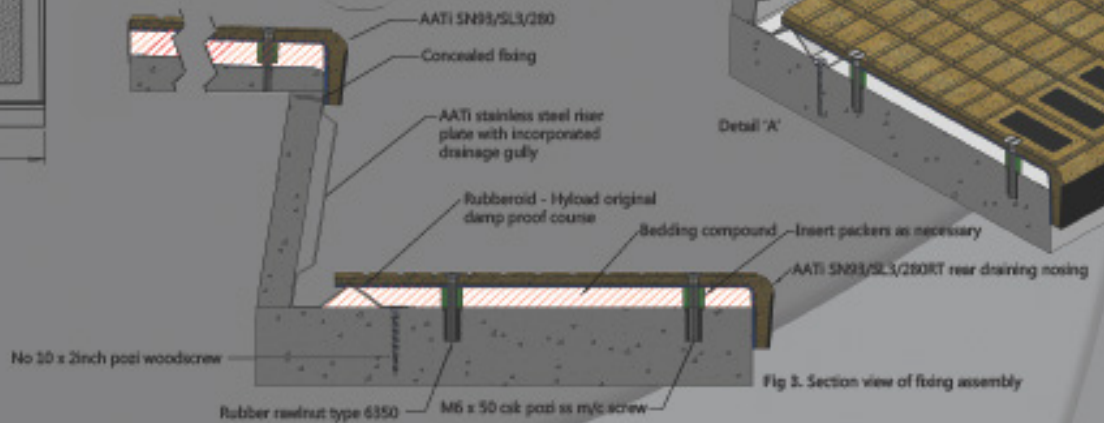
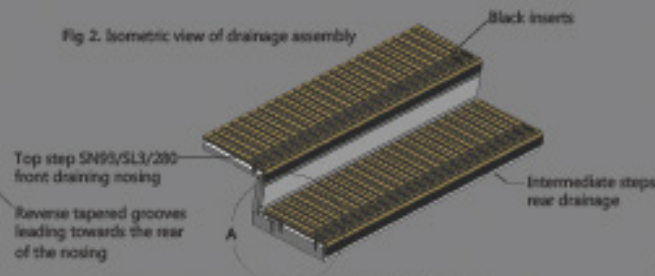
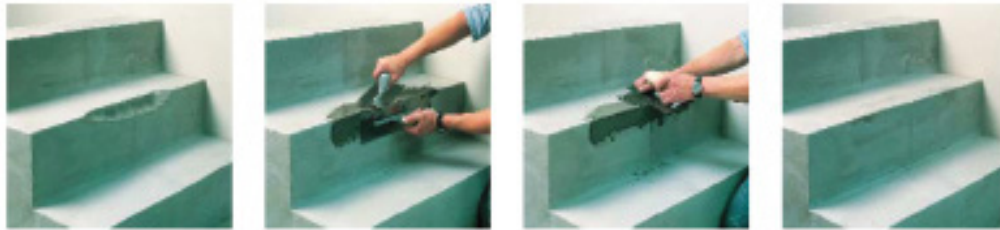


Fig 3. Section view of fixing assembly



AATi Recommended Installation Guidelines for fixing to concrete

1. Check surface is sound and level.
2. Make good any worn or damaged areas or uneven surfaces with Ardex A46 or similar authorised rapid setting and hardening repair mortar (as below).



3. Position AATi nosing onto step in correct position.
4. Spot through holes using 7mm masonry drill bit.
5. Lift off nosing and drill pilot holes through spotted positions using a 13mm drill bit.
6. Clean out dust/dirt or any other contaminants from hole.
7. Push Rubber Rawlnut type 6350 down into concrete substrate.
9. Apply Damp Proof Course (Rubberoid - Hyload original DPC) to cover the entire internal face of the nosing.
9. Place nosing back into position on step ensuring it is fully supported.
10. Fix by inserting appropriate length (50mm) M6 Pozi stainless steel countersunk machine screw and tighten to form a secure fixing.

Fig 1. Section view of fixing detail for stair nosing- SN93/SL3/280

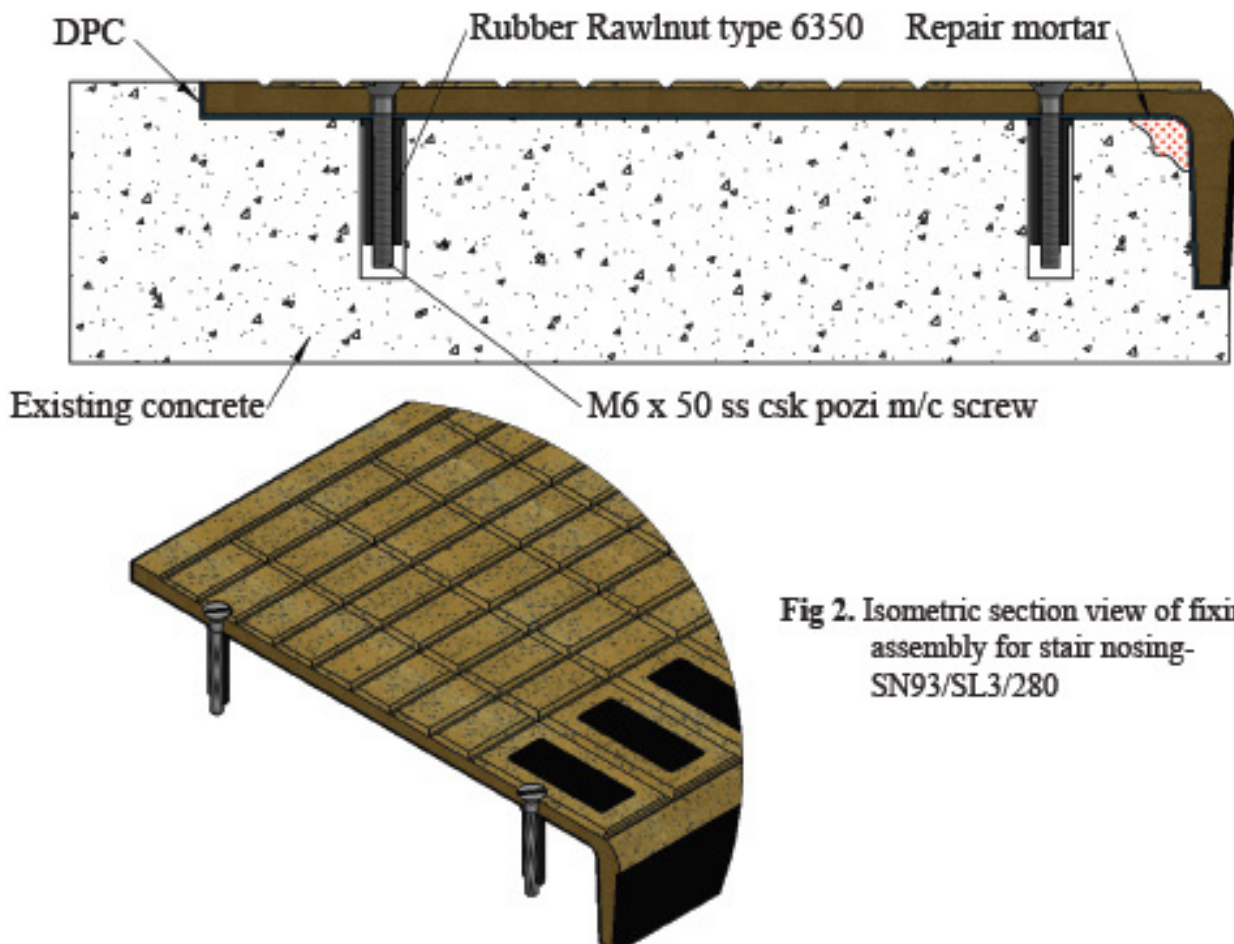


Fig 2. Isometric section view of fixing assembly for stair nosing- SN93/SL3/280

AATi Recommended Installation Guidelines for casting into concrete

1. Ensure the underside of nosing is clean from dust/dirt or any other contaminants.
2. Cut an appropriate size piece of DPC to cover the entire internal side of nosing.
3. Apply Damp Proof Course (Rubberoid - Hyload original DPC) to cover the entire internal face of the nosing and drill through holes in nosing.
4. Insert M6 x 20 stainless steel countersunk pozi machine screws through nosing and DPC into AATi cast iron anchor blocks and tighten.
5. Position AATi nosing with DPC membrane into mould unit and protect as necessary to stop slurry getting on to visible surfaces of the nosing.
6. Mix and pour concrete.
7. Leave to set.
8. Remove from mould as soon as possible and clean as necessary.

Fig 1. Section view of fixing detail for stair nosing -SN93/SL3/140

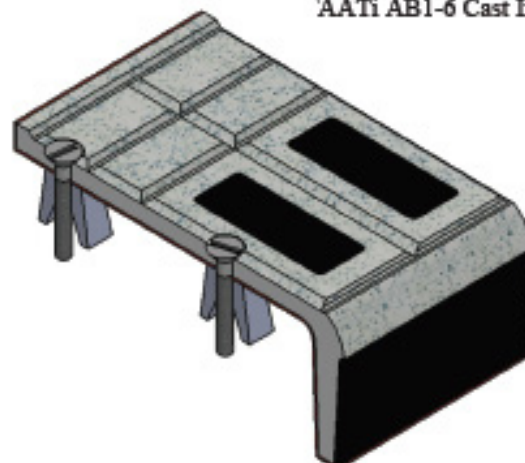
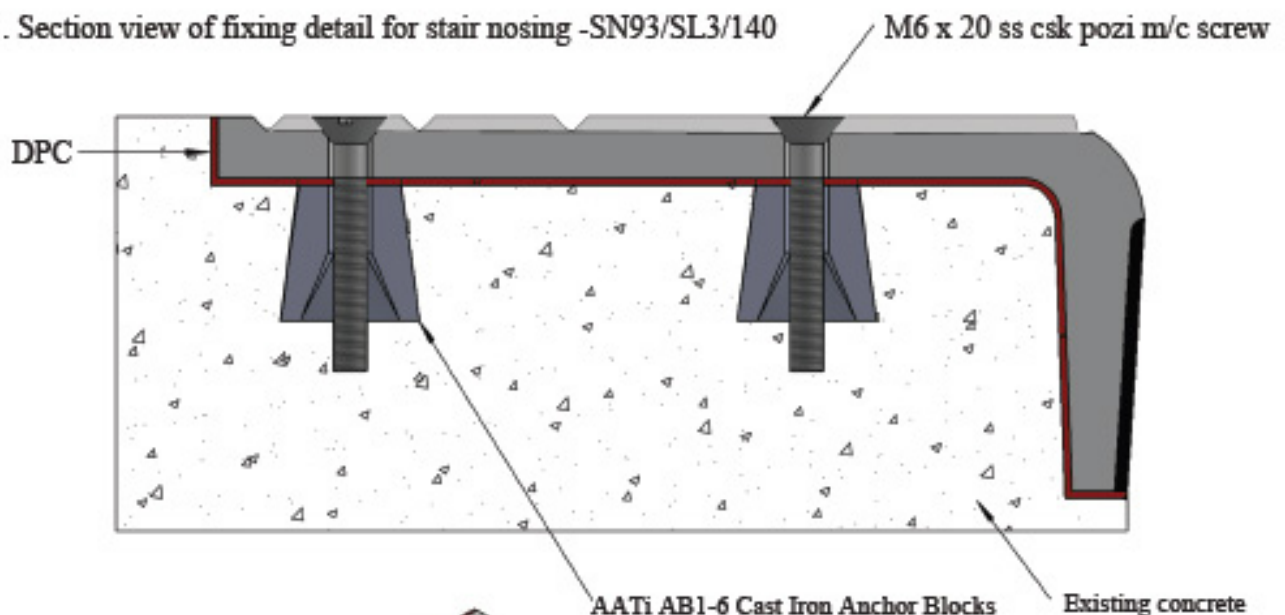
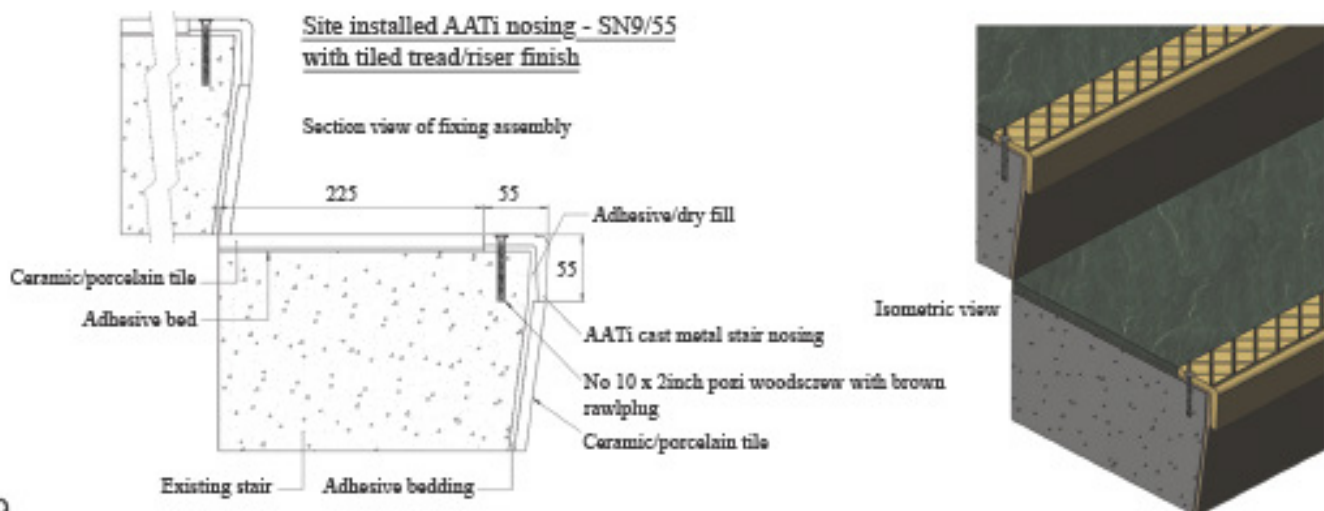
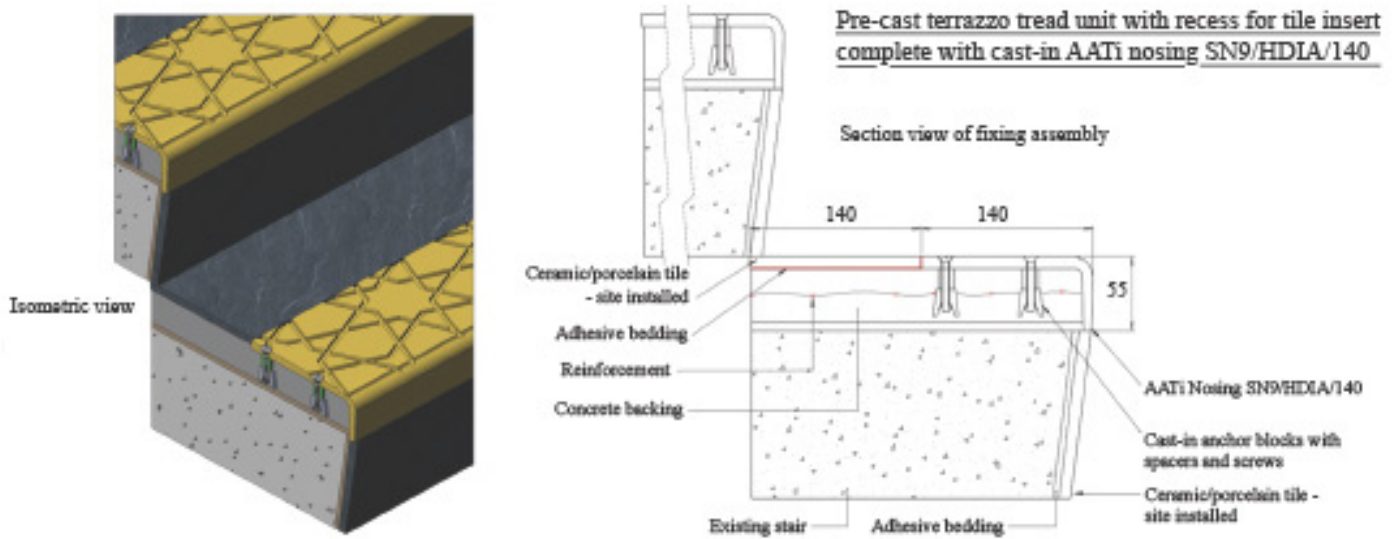
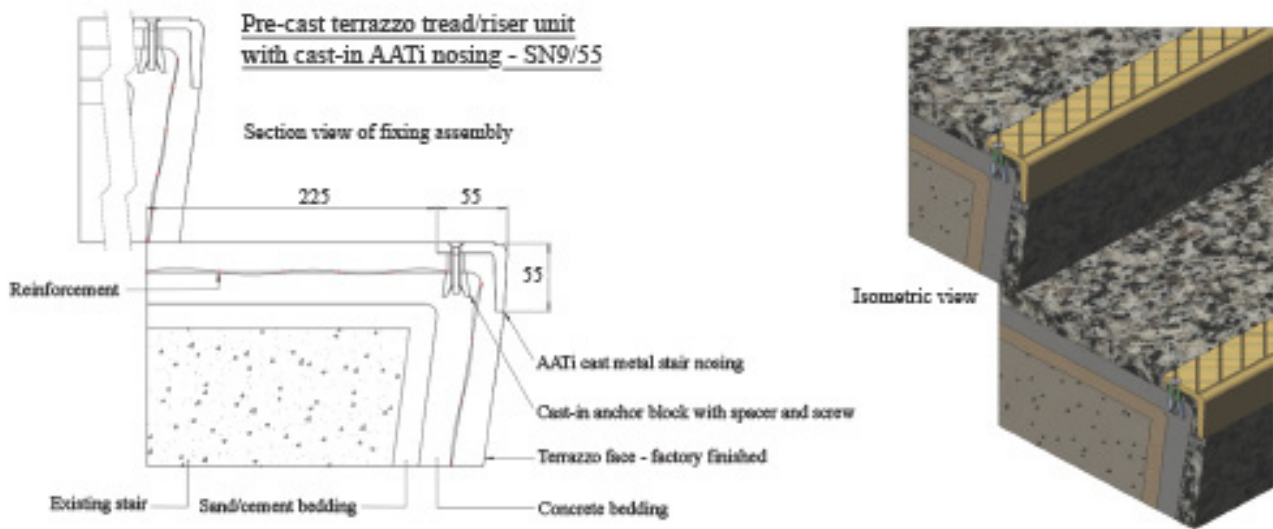
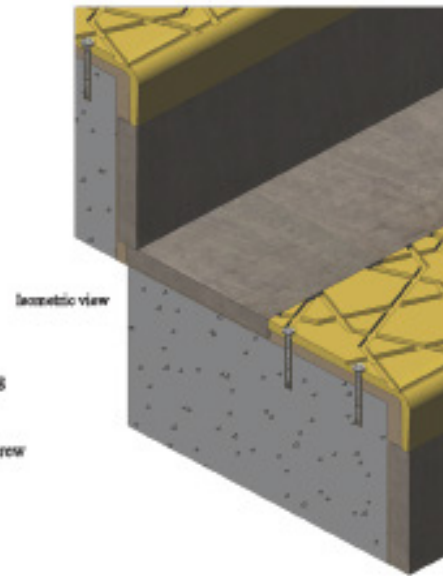
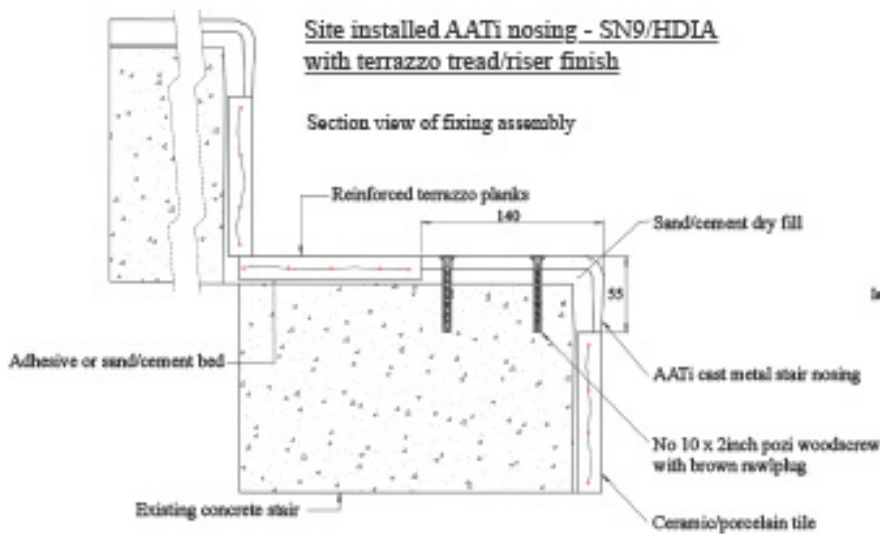


Fig 2. Isometric section view of fixing assembly for stair nosing-SN93/SL3/140



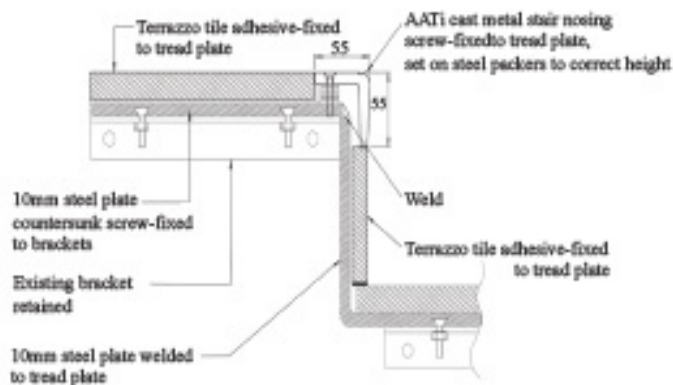
Site installed AATi nosing - SN9/HDIA with terrazzo tread/riser finish

Section view of fixing assembly



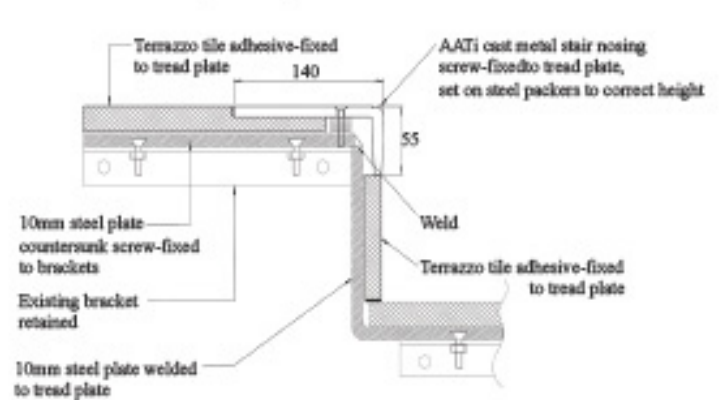
Site installed AATi nosing - SN9/55 onto steel stair

Section view of fixing assembly



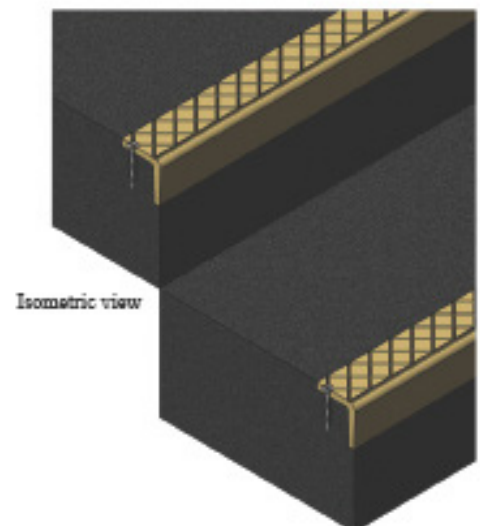
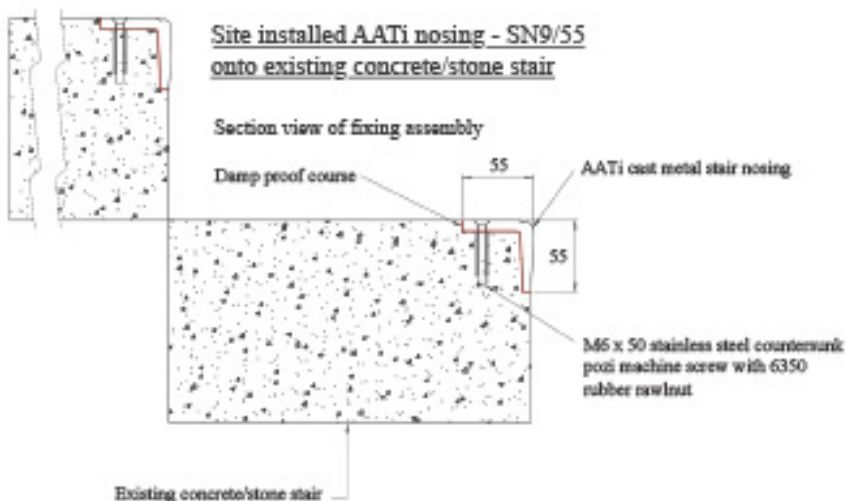
Site installed AATi nosing - SN9/HDIA/140 onto steel stair

Section view of fixing assembly



Site installed AATi nosing - SN9/55 onto existing concrete/stone stair

Section view of fixing assembly





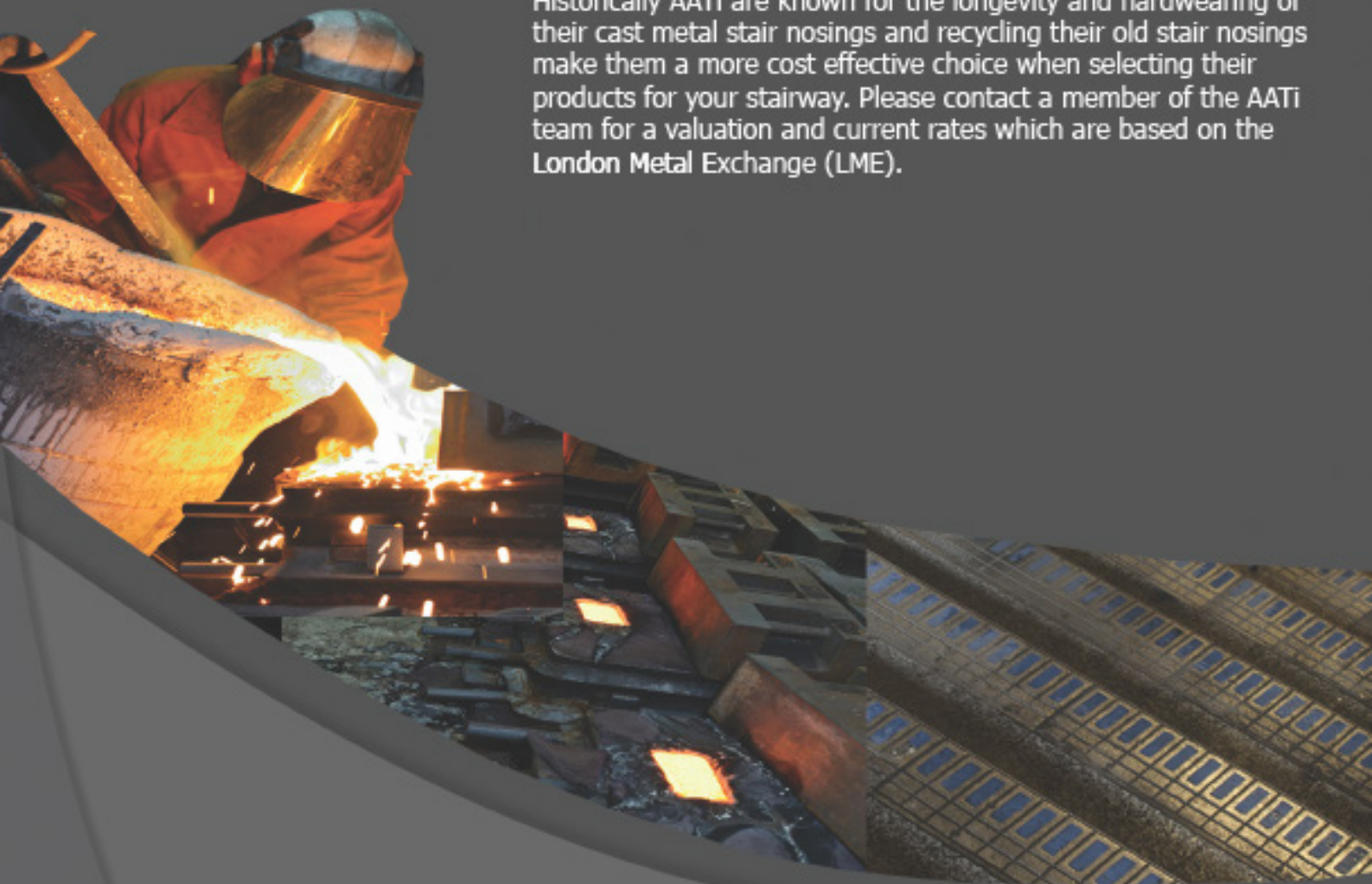
-SERVICES

Recycle scheme

AATI are now offering a recycling scheme which helps reduce its carbon footprint and helps the environment. The actions of recycling scrap metal decrease the depletion of natural resources but they also omit other types of pollutants that are produced due to mining activities. There are a lot of toxic gasses (green house gasses) that are emitted during mining activities and recycling helps reduce this. A vast amount of energy is also saved as recycling takes up less energy as opposed to mining and transporting virgin ore. Metal can be recycled without losing its important chemical properties.

How we can help

Historically AATI are known for the longevity and hardwearing of their cast metal stair nosings and recycling their old stair nosings make them a more cost effective choice when selecting their products for your stairway. Please contact a member of the AATI team for a valuation and current rates which are based on the London Metal Exchange (LME).





- SERVICES

Installation:

AATi product which has not been installed in the recommended way may lead to failure or conditions which are optimum in terms of safety. The company provides installation guidelines to ensure safe and hazard free fitting.

Maintenance:

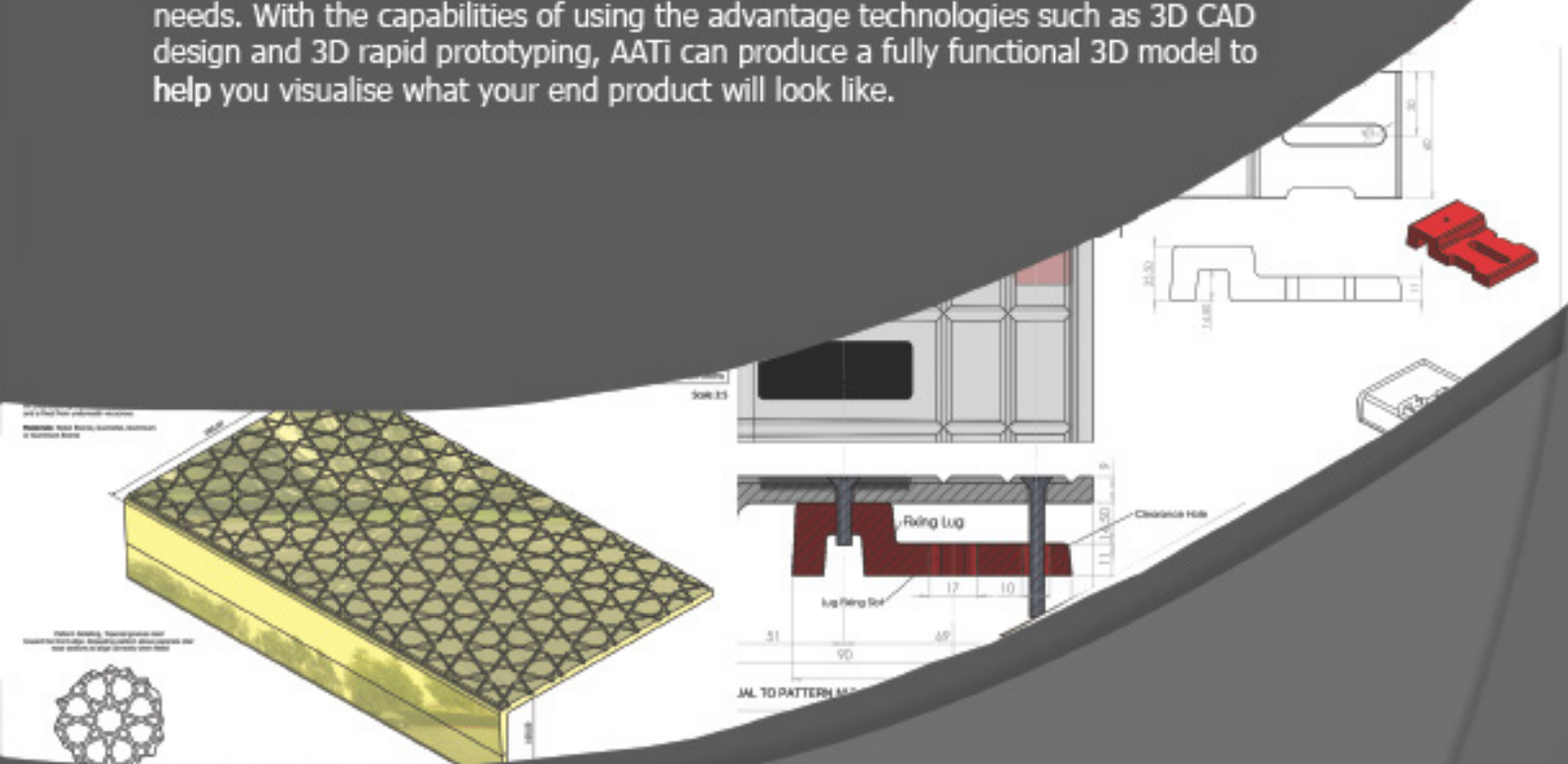
By the very nature of the product damage, wear, or discolouration may occur due to a wide range of reasons. AATi's pledge is to give advice on a sensible course of action to remedy problems with either their product or those of other manufacturers.

Surveys and site visits:

AATi engineers and sales staff are available to consult on all technical aspects of product and installation. Where necessary site visits can be arranged.

Product Design:

With a wide range of product covering light aluminium stair nosings through to coverall products and heavier duty profiles, all with the option of coloured resin inserts, AATi products can be both chosen from standard design or modified to suit exact customer needs. With the capabilities of using the advantage technologies such as 3D CAD design and 3D rapid prototyping, AATi can produce a fully functional 3D model to help you visualise what your end product will look like.





Export



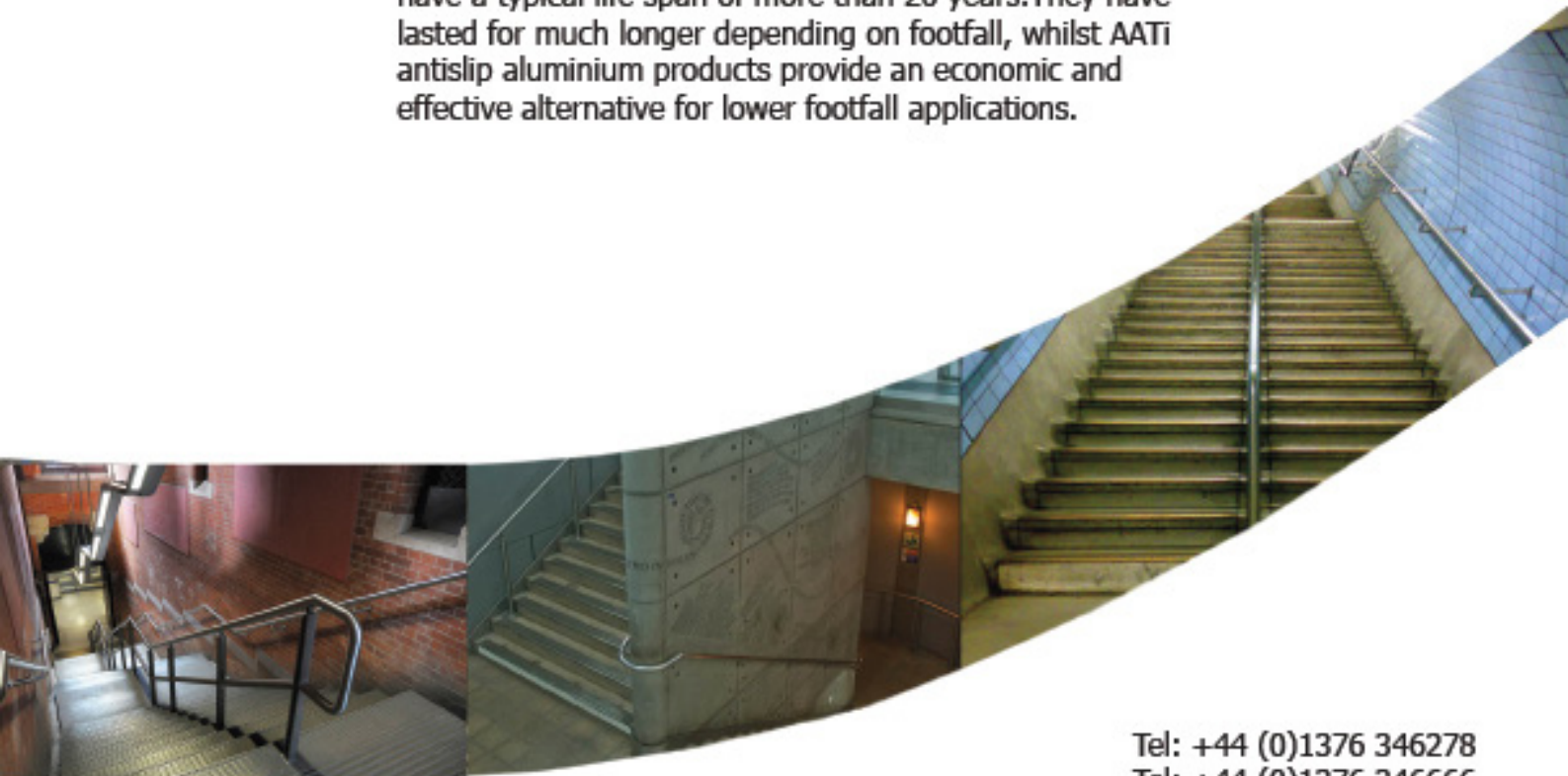
Bespoke



Railways

AATi - The acknowledged leading UK manufacturer and supplier of stair nosings for high footfall applications for many pedestrian environments. These include rail and underground stations, shopping malls, multi-storey car parks and railway carriage thresholds.

Our top specification cast metal antislip gratings, plates, insert bars and over 50 different stair nosing designs have a typical life span of more than 20 years. They have lasted for much longer depending on footfall, whilst AATi antislip aluminium products provide an economic and effective alternative for lower footfall applications.



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