

SCREEDCRETE

In-Situ Terrazzo “Mixtures placed and polished on site”

AVAILABLE IN:

- Smooth Polished Terrazzo For Internal High Foot Traffic Areas.
- Exposed Aggregate Non-Slip Flooring For External Outdoor Areas.

SUITABLE FOR:

Shopping Malls, Airports, Universities/Schools, Hospitals, Hotels, Commercial Lobbies/ Walkways, Designer Retail Stores, Private Residence, External Walkways, and Pool Surroundings.

SCREEDCRETE - IN-SITU POLISHED TERRAZZO FOR INTERNAL FLOORING

INTRODUCTION

We are able to offer our specially formulated, polished “Screedcrete” mixture in several exciting colours, for application to fabricate beautiful seamless and hard wearing floors. Screedcrete is supplied premixed and packed in 40kg bags.

In brief:

Our new polished “Screedcrete” mix designs are offered in a diverse colour range, encompassing 12 colours. (Special colours can be made to order). The thickness of application ranges from a minimum of 12mm; 16mm, 19/25mm or up to 30mm in thickness. The preparation involves firmly screwing right angled aluminum or brass

angle or coloured perspex strips with a height of 12/16/19/25/30mm to a hard slightly rough concrete base in 1m x 1m or maximum 1.2m x 1.2m square panels. Once the aluminum strips are firmly screwed to the floor at ± 600mm intervals, the panels are filled using our Screedcrete and trowelled level to the top of the aluminum or brass strip.

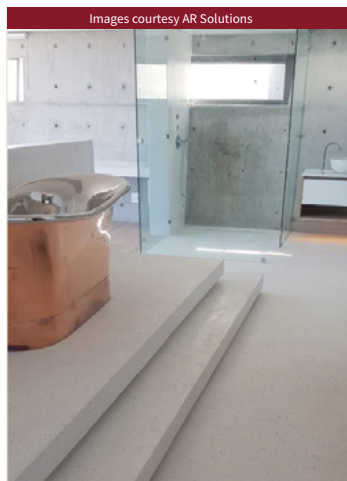
The area must then be allowed to cure by covering it with plastic and keeping it wet for 4-5 days. On about the 3rd or 4th day, polishing takes place, using a range of floor grinding abrasive blocks attached to a Terrazzo or marble floor grinder. (All grinding blocks and machines available from Union Tiles).

“Sample panel of newly supplied batch”

A small sample panel must be undertaken of the new batch supplied and is to be placed, cured, ground, and polished and sealed, for the client’s approval! This sample must be done before all the mixture is placed using the product batch ordered and supplied. The supplied batch may differ from the original sample, due to natural raw material variations and batch differences which are to be expected. Hence the necessity for the client’s approval, before proceeding!

EXAMPLES OF SEAMLESS “SCREEDCRETE” FLOORS

Different colours can be used within the dividing aluminium, brass or coloured perspex strips



Floor designs are limitless and unique patterns are possible by using formable aluminium to bend and create the pattern.

CROSS SECTION VIEW SHOWING STEPS TO CAST PANELS

Summary in brief:-

Step 1

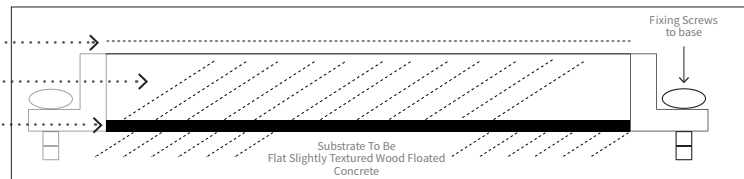
Apply one coat 42.5 OPC Cement + UFT Bond mix to a slurry consistency, then while still moist, place Terrazzo mix on top.

Step 2

In Situ Terrazzo mix to be placed, compacted, strike level and use a wood then steel float to smoothen the panel.

Step 3

Seed in ± 400 - 500grams of aggregates and float level, an In Situ pipe roller will assist in this process.



Step 4

Cover panel with clean plastic for curing the day of casting

Matching coloured factory grout is applied to the surface after rough grinding to fill any cavities that may have opened up.



Alternate panels are placed on top of primed surfaces and the Terrazzo mixture floated level after seeding in extra aggregate.



PREPARATION OF AREA

Step 1

The area to which the Insitu Screedcrete is to be applied, must be a stable, slightly rough wood floated, flat concrete slab, which is clean and free of any oils and other chemicals prior to application of the Screedcrete mixture. Should the concrete substrate be smooth, first apply the aluminium strips as detailed in (Step 2), thereafter apply our “Quartz splatter dash coating” (supplied in 40kg bags) with U.F.T. bonding liquid to roughen the surface and allow it to dry for at least 24 hours or use a chipping hammer to roughen the

surface at least every 40-80mm. Three hours before application of Screedcrete, thoroughly wet the slab area, prior to application, to ensure minimal loss of moisture from the screed mix into the slab, and to avoid early drying of the material and possible crazing and delamination. Establish the total quantity of Screedcrete needed for the entire area and order one batch. Add 5-10% for on site wastage. See coverage/m² below.

Step 2

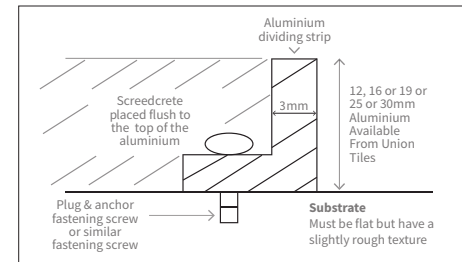
Aluminum or brass right angle strips or perspex in a selected colour is to be fastened to the substrate in squares, while ensuring the top surface of the aluminium or perspex is level. All panels to be isolated from walls and columns with a ±10mm shadow line or gap. Floor panel sizes should be square, however, if they are rectangular, the long length must not exceed the short length by 1.66 times its multiple.

Any existing substrate structural expansion joints or casting panels must mirror through or coincide with the panels above and be left as soft joints. The right angled strips are fastened to the floor with plastic wall plugs and countersink screws or epoxy.

Pipe or cable trenches in the substrate create a weak structural slab and will crack. Dividers or expansion strips should be placed directly above each side. **The purpose of these panels and saw cuts is to produce controlled cracks, adjacent to the strip where it is not noticeable.**

Where the aluminium strips meet at right angles in the corners of each panel it is recommended to cut the bottom foot piece of the aluminium out ± 50mm away from each corner (using an angle grinder) to ensure a good bond in the corners between the in situ Screedcrete and substrate.

Cross section of substrate and aluminium strip



RECOMMENDED POLISHED “SCREEDCRETE” THICKNESS AND COVERAGE

WATER PER 40kg TERRAZZO MIXTURE	SCREEDCRETE SCREED THICKNESS	QUANTITY OF SCREEDCRETE/m ²	ALUMINIUM RIGHT ANGLE SIZE PER PANEL	QUANTITY OF ALUMINIUM required/m ²	MAXIMUM PANEL SIZE	SEEDING STONE/ AGGREGATE	MATCHING FILLER GROUT	UFT BONDING LIQUID Used for both primer coat and grouting coat
3.25l/40kg	30mm	± 70 KG / M ²	30 x 30 x 3mm	±2.1 Linear	1.4m x 1.4m	500g/m ²	0.5Kg/m ²	325ml/m ²
3.25l/40kg	25mm	± 60 KG / M ²	25 x 25 x 3mm	meter per	1.2m x 1.2m	500g/m ²	0.5Kg/m ²	325ml/m ²
3.25l/40kg	19mm	± 46 KG / M ²	19 x 19 x 3mm	square meter	1m x 1m	500g/m ²	0.5Kg/m ²	325ml/m ²
3.25l/40kg	16mm	± 39 KG / M ²	16 x 16 x 3mm	excluding any	1m x 1m	500g/m ²	0.5Kg/m ²	325ml/m ²
3.25l/40kg	12mm	± 29 KG / M ²	12 x 12 x 3mm	wastage	1m x 1m	500g/m ²	0.5Kg/m ²	325ml/m ²

COVERAGE/CONSUMPTION OF OTHER MATERIALS REQUIRED

All available from Union Tiles

- Seeding Stone ± 500grams/m² supplied in 40kg bags
- Matching Screedcrete filler grout ± 0.5kg/m² supplied in 20kg bags
- UFT Bonding Liquid ± 5l/20kg Screedcrete filler grout or 0.125ml/m².
- Aluminium lengths 2.25Lm/m²
- Cement for a primer coat to substrate ± 0.8kg/m²
- UFT Bonding Liquid for primer coat mixed with cement 5l/20kg of cement or 200ml/m²

Please add 5-10% to these quantities for on site wastage, depending on the surface/substrate



MIXING, PLACEMENT AND SEEDING OF AGGREGATES

Step 3

Mixing and placement of the “Screedcrete” mixture and seeding of aggregate

Mix only sufficient Screedcrete material that can be used and placed within 1 hour ensuring that the mixture in each panel is placed flush with the top of the aluminium / brass. No panels should be left partially filled, as separation cracks will appear when the new “Screedcrete” mix is applied at a later stage. The panels are to be filled to the top of these strips. The mixture should be mixed using a mechanical mixer with a measured amount

of water to a workable mortar / concrete mix (preferably not too wet) ± 3.25 litres per 40kg and then placed and trowelled in these panels to a level finish with a wood float. Thereafter additional 2 or 3 handfuls per panel, of the same Terrazzo stone should be sprinkled or “seeded” over the fresh “Screedcrete” mixture (and then trowelled to a smooth finish) with a steel trowel, to ensure maximum composition of the Terrazzo chips on the surface. The “Seeding Aggregate” is supplied in 40kg bags and is seeded onto the screed, whilst slightly damp \pm two handfuls per

panel ± 500 grams/m². A round pipe roller is used to then level and compact the wet mix by rolling over the screed and aluminium or brass panel strips, thereafter trowel the panels smooth again with an extra long steel trowel. “Take extra care to ensure the Screedcrete panels are trowelled smooth, and are very flat, (use a straight edge) and that there are no holes in the surface of the newly cast panels, for the best finish and ease of grinding later”. **Ensure there are no drafts across the panels (shield the panels with plastic sheeting from drafts) and ensure that they are not in direct sunlight, as these factors may cause early shrinkage cracks.**

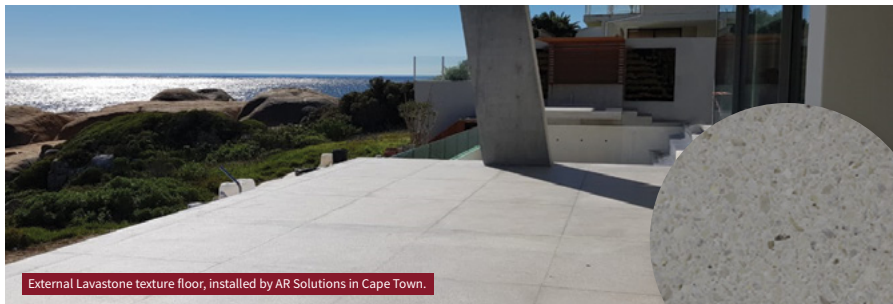
Step 4

Curing and initial rough grinding

The day following the application of the “Screedcrete”, the area must be kept moist with clean water for ± 4 days and covered with roof sheeting plastic, to prevent early drying out from drafts or the sun. On about the 3rd or 4th day, depending on daily temperatures and thickness of the slab, areas can be ground using a grit 40 or 60 metal diamond grinding

segments attached to a Terrazzo or concrete floor grinder. All machinery and equipment is available from Union Tiles. In hard to reach areas, a small hand held wet polisher with a snail polishing wheel holder (available from Union Tiles) with the same grit polishing pads, will ensure the work is done speedily and efficiently.

The areas must be ground such that the “Screedcrete” is ground throughout, exposing the stone chips uniformly and grinding over the brass, Perspex or aluminium strips. The coloured Screedcrete mixture between the chips must also be smooth (if the finish is “rough” after grinding then the area requires more curing time before grinding, in order to reach a greater strength).



External Lavastone texture floor, installed by AR Solutions in Cape Town.

Lava Stone non-slip texture

For a “Lava Stone” (Non slip texture for outdoor areas)

After grinding with grit 60 for a Lava Stone non-slip finish, attach diamond bristle brushes to the grinder plate and grind the floor to a uniform non slip Lava Stone finish, then attach a set of grit 120 diamond brushes as the final grinding stage for a non slip Lavastone finish. Following this process, proceed to cleaning and sealing (Step 6).



Full Bodied Slim Line Terrazzo,
Authentic Handcrafted Patterned Tiles & Mosaic

Polishing Machinery

POLISHING MACHINERY AND ACCESSORIES REQUIRED

All available from Union Tiles

FOR MORE DETAILS ON THE FULL RANGE VISIT WWW.DIASTAR.CO.ZA



Electric Motor Driven Concrete Mixing Drum.
Mixes 4x40kg with 13l water



Polishing Machine XY-X6 Planetary 4 HP
220 VOLT 1 phase Variable
Speed 300-1200 rpm



Wet and Dry 60L Industrial Vacuum
Cleaner with 2 motors for quick and
efficient removal of grinding residue.

Base Grinding
Plate with velcro

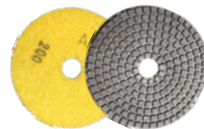


Versatile Light Duty and economically priced
Polishing, Grinding and Scrubbing Machine for floors
220V 1.8kw | Model DS-1175B. Water tank allows wet
polishing, avoiding dust while polishing.

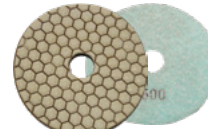
Wet Stone Polisher & Grinder for hard to
reach areas or against walls and corners
and for steps and risers



Velcro Flexible Backing Disc
1FLEBACDISHD100 | 100mm (M14 Thread)
(To fit on hand Polisher)



Wet Flexible Polishing Pads
With Velcro
1DIAPOL100WET
100mm Diameter
Grit: 50, 100, 200, 400, 800, 1500,
3000

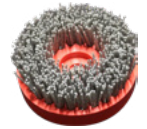


Dry Flexible Polishing Pads
With Velcro
1DIAPOL100 DRY
100mm Diameter
Grit: 50, 100, 200, 400, 800,
1500, 3000

*Diamond Bristled Brushes
For a non slip texture*



Base plate fitted with a set of
wings to hold Frankfurt metal
abrasives or diamond bristle
brushes below:



Diamond Fibre Hand
Polishing Brush
1DIAHANBRU60
For non-slip
Texturing

Floor Maintenance
Scrubbing And Buffing Pads



3M PADS
13MSTRBLAPAD (Black) For Stripping
13MSTRREDPAD (Red) For General
Maintenance
13MSTRWHIPAD (White) For polishing
Fits on 1175B Machine

Brush Attachment
For cleaning and general
maintenance



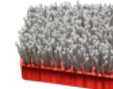
Carpet Brush Attachment
1HXGCARBRUCBA001
410mm Diameter
Fits on 1175B Machine



Left & right wings for
modifying your own
abrasive grinding block
attachment system.
MAPWINSTO



Frankfurt Metal
Diamond Segment
1DIAPOLEGFRAG25
Grit: 25, 40, 60, 80, 100,
120, 150, 220
(For initial heavy deep
and quick grinding).



Abrasive Frankfurt
Diamond Fibre Bristle Brush
1ABRFRA
Grit: 60, 120, 180, 220, 320, 400,
600, 800

*90° Aluminium
Dividing Strips*



Use wings to locate and attach bristle brushes and metal diamond
Frankfurt segments to the base plate



Step 5 GROUTING AND REPOLISHING STAGE

Fine holes may become visible after the first grinding stage, then apply a matching “coloured Screedcrete cement grout matrix”, available from Union Tiles and mixed with 100% “UFT bonding liquid”. This is then applied as a thin coating using a rubber squeegee or cloth throughout the floor area, filling any voids. After 24 - 48 hours this coating is then ground off using a finer grit 100 then 200 polishing pad, which will ensure a smooth unpitted seamless floor finish. (In winter two extra days may be required for increased curing)

A higher shine can be achieved by then using a grit 400 then / 800 then / 1000 depending on the polish/shine required. A stunning mirror like appearance can be achieved, which is also easy to maintain and keep clean, by following the sequential polishing stages. Using Union Tiles Marble Polishing Powder as a final stage polish can enhance the polish or reflectivity by 30% and more! At least 3 slow passings of the polishing machine are required to successfully polish the floor with each polish stage used.

Step 6 SEALING & MAINTENANCE OF TERRAZZO FLOORS

After final polishing, wash the floor with the carpet brush attachment attached to the base of the floor grinder and vacuum the dirty cleaning water and allow it to dry. Once dry and clean, apply 3 thin even coats in succession of UFT Concrete and Stone sealer (with a lambs wool sealer applicator), allowing each coat to dry between coats (±15 minutes). On top of this apply one coat of a sacrificial buffing coat called SQT Dresser. After the Dresser coat is dry ± 30 minutes buff the floor with the 1175B Polisher fitted with a white 3M pad (see pg. 37)

GENERAL MAINTENANCE

The floor must be scrubbed on a regular basis depending on foot traffic for best results etc. Give preference to high traffic areas. Rotary polishers / scrubbers, walk-behinds, ride-ons etc. must be used (depending on area size). Best results are achieved by removal of the dirty water with a wet and dry vacuum and the use of red 3m pads shown on page 37.

Neutral detergents such as (SQT Natural Stone Detergent) or other similar approved neutral soap products must be used at all times. **No acid or ammonia based cleaners!**

RE-APPLICATION OF A BUFFING OR DRESSER COAT

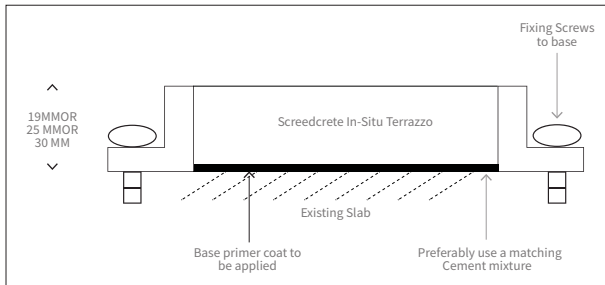
In high traffic areas where the sealer shows signs of wear due to extensive use eg. Schools, shopping malls and commercial buildings, hotels etc. after cleaning the floor with a floor scrubber and a solution of the SQT Natural Stone Detergent follow with a wet and dry vacuum and allow it to dry. Where the top sealer coat has shown signs of wear, re-apply SQT Dresser as detailed above or by spraying it on the floor, using a spray bottle holder and while moist on the floor. Buff it onto the floor with a mechanical scrubber and a white 3M pad. This should be done once a month or once a year, depending on foot traffic and wear, to maintain the floor to a high standard.

Warning: The wrong cleaning detergents will damage the Terrazzo product. The cleaning detergents must be free from ammonia and acids. (Ammonia will strip the acrylic sealer exposing the virgin Terrazzo to potential damage and staining). Terrazzo is a cementitious product and is highly susceptible to acid damage. Never use acid based cleaners. SQT Natural Stone Detergent is the approved neutral detergent and degreaser for Terrazzo Flooring.

PRODUCT GUARANTEE

A one year product guarantee is supplied provided all instruction and maintenance procedures are adhered to. The guarantee is strictly limited to the value of the Screedcrete product supplied and invoiced and does not include any consequential or inconsequential damages, labour or other costs.

Cross section view





SCREEDCRETE EXPOSED AGGREGATE FOR NON-SLIP OUTDOOR AREAS

IN-SITU COLOURED SCREED SYSTEM, FOR EXTERNAL NON-SLIP FLOORS.

INTRODUCTION

We are able to offer our specially formulated, exposed aggregate “Screedcrete” mixture in several exciting colours, for application to fabricate beautiful hard wearing, non-slip, low maintenance outdoor floors.

Our “Screedcrete” exposed aggregate mix designs are offered in a diverse colour range, and aggregate size in either a 6mm or 13mm size, encompassing 8 standard colours. The thickness of application as a screed, ranges from a minimum 19mm up to 30mm in thickness. Natural pebbles can also be incorporated for a smoother texture (Especially suited to out door patios or piazza areas around swimming pools or in a sauna, where the non slip features of the product are highly beneficial).

TRIAL PANEL TO BE UNDERTAKEN

A sample panel of the batch supplied is essential before doing the entire job (See page 34 Sample Panel). We are able to offer our specially formulated, exposed aggregate “Screedcrete” mixture in several exciting colours, for application to fabricate beautiful hard wearing, non-slip, low maintenance outdoor floors.

SHUTTERING/ ALUMINIUM STRIPS

Aluminum strips must be firmly secured to the floor at recommended panel size intervals (please refer to step 2 for internal flooring ‘recommended thicknesses’) creating a grid. The right angled strips are fastened to the concrete floor with plastic wall plugs and countersink screws.

PREPARATION OF THE SUBSTRATE AND PLACEMENT OF SCREEDCRETE

Apply a thin primer slurry (pure matching coloured cement and UFT bonding liquid mixed to a creamy consistency) evenly on the floor area with a builders block brush to ensure proper bonding between the floor and screed. While this slurry is still moist, apply the Screedcrete on top of the slurry and trowel it level, to the top of the strip / shuttering. It is imperative that the Screedcrete mixture be placed on top of the slurry while it remains moist (i.e. within ±20 minutes of applying the slurry) to ensure proper bonding between the concrete substrate and “Screedcrete”. The Screedcrete should be mechanically mixed using only ± 13 litres water per 160kg of screedcrete (mixture ie 4 x 40kg bags). Place alternate panels to allow ease of application. After initial set ± 1-2

hours after trowelling (trial an area) use a fine wire bristled brush and hand brush the surface to expose the surface aggregate to a “uniform depth and exposure”. All excess surface filler that is brushed loose, must be swept to a point and must be discarded asap.

Ensure each panel is brushed out to the same depth and must be uniform in appearance. After ± 4-6 hours after brushing and exposing the aggregate use clean water and a builder’s block brush and lightly wash the surface after application. Should there be any remnants of cement residue on the exposed aggregates brush the area with a mild solution of SQT Terrazzo and Cement Cleaner a day or two later, diluted about 1-10 (1. Parts SQT to 10 parts water) or slightly stronger if necessary, to get the stone clean and thereafter rinse the area thoroughly with clean water.

The day after application, irrespective if the area needs to be chemically cleaned or not, flood the newly placed panels with water to allow for proper curing/hardening of the concrete and try avoid drafts and direct sunlight on the panels, for seven days once mixing and placement commences.

SEALING - THIS IS OPTIONAL

Sealing is not necessary on “Screedcrete”, exposed aggregate.

A sealer enhances the colour of the natural stone and makes it easier to maintain and is usually applied approximately 7 Days after installation. (once the floor moisture content is less than 4%). The area can be sealed provided it is clean and dry. Use 1-2 coats UFT Concrete and Stone Sealer, for an enhanced colour appearance. These products are available from Union Tiles and must be applied evenly with a lamb’s wool roller. (Allow approximately 20 minutes drying, time between coats). The sealer may need to be reapplied every 36 months depending on foot traffic and weather conditions and exposure to sunlight.

Examples of Exposed Aggregate Screedcrete





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Nelspruit	(013) 752 6762
Randburg	(011) 791 4925
Namibia (Windhoek)	(00264) 61 271 296/7
Swakopmund	(00264) 64 461 111
Design Studio By Union Tiles - Hillcrest	(031) 765 8021/8024
Design Studio By Union Tiles - Silverlakes	(012) 809 0971