UKUZA

SAPS/ SAM/

SAPS SAMORA MACHEL
INTERNALS FINISHING SCHEDULE

GENERAL NOTES

1. The Schedule contains pages **1 to numbered** consecutively. The Contractor is required to check that none of the pages are missing or duplicated. If any part of this schedule is indistinct or contains any obvious errors, he must make written application to the Architect to have such errors rectified.

2. Compliance with OW371 ("Specification of materials and methods to be used") as published by the Department of Public Works, is applicable to this project), NBR and SABS specifications are compulsory.

3. Where specific manufacturer's instructions and recommendations contradict that of the OW 371, NBR or SABS, then the Architect is to immediately be notified prior to commencement with the affected trade/installation.

4. Any discrepancy or contradiction to be immediately reported to the architect in writing.

5. All dimensions and materials to be checked on site prior to ordering manufacturing.

6. Any product specifications indicated are a guide and can be substituted for any similar product approved by the Architect.

7. This document is a work in progress and may be altered.

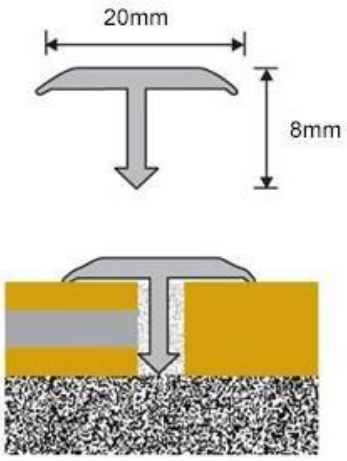
8. Refer to the Paint Specifications where relevant.

The Contractor to prepare a sample room for approval of the quality standard of finishes to be achieved.

REVISION No.	**DATE**	**DESCRIPTION**

UKUZA

FLOORS

CODE	TREATMENT
	Screed
	New granolithic floor finish on concrete surface bed as per Structural Engineers specifications. Rolled with sponge roller to create ripple affect
	Transition strips **NOTE –TO BE FITTED AT ALL CHANGE IN FLOORING**
	TILE THRESHOLD (tile/ tile junctions) Fit aluminium strips at change, between the new ceramic tile and the porcelain tile. Promax Aluminium T-Piece - 2500 x 22mm fixed in position with an approved adhesive.   **Other Thresholds (i.e. tile and vinyl)** Fit aluminium strips where there is a change in floor specification Promax Aluminium Reducer - 1000 x 44mm (Code: PFET0005) 8mm high fixed in position with an approved adhesive . 

	Porcelain tiles (ablutions)
	Avenue Grey Matt Glazed Ecotec Porcelain Tile 600 x 600mm Non- slip porcelain tiles: 4 PEI Rating, size 600 x 600 x 7.8mm thick, fixed to internal floor screed with Tal Professional tile adhesive mixed with Tal Bond bonding liquid in lieu of water on concrete surface bed (elsewhere specified), using a Tal notched trowel, with 3mm joints continuous in both directions, and grouted with Tal Professional tile grout. Grouting- Dove Grey mixed with tylon bond – anti-fungicidal solution. ***NOTE: COLOURS TO BE CONFIRMED AT SITE HANDOVER*** 
	Porcelain tiles (for outdoor verandas and outdoor passages)

	•Avenue Grey Slip-Resistant Glazed EcoBody Porcelain Tile - 600 x 600mm Non- slip porcelain tiles: sizes 600 x 600 x 7.8mm thick fixed to external floor screed with Tal Professional tile adhesive mixed with Tal Bond bonding liquid in lieu of water on concrete surface bed (elsewhere specified), using a Tal notched trowel, with 3mm joints continuous in both directions, and grouted with Tal Professional tile grout. Grouting- Dove Grey mixed with tylon bond – anti-fungicidal solution. ***NOTE: COLOURS TO BE CONFIRMED AT SITE HANDOVER*** 
	Porcelain tiles (office areas, passageways and kitchenettes that require porcelain tiles)

•Eros Grey EcoTec Matt Porcelain Floor Tile - 600 x 600mm

Non- slip porcelain tiles: sizes 600 x 600 x 7.8mm thick fixed to internal floor screed with Tal Professional tile adhesive mixed with Tal Bond bonding liquid in lieu of water on concrete surface bed (elsewhere specified), using a Tal notched trowel, with 3mm joints continuous in both directions, and grouted with Tal Professional tile grout. Grouting- Dove Grey mixed with tylon bond – anti-fungicidal solution.

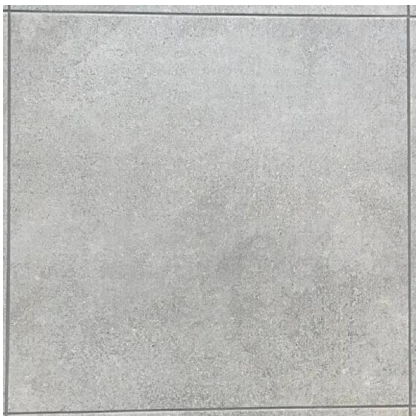
NOTE: COLOURS TO BE CONFIRMED AT SITE HANDOVER

Ceramic tiles (for all other areas that require porcelain tiles)

• Ottimo Grey Matt Ceramic Floor Tile - 600 x 600mm

Ceramic tiles: sizes 600 x 600 x 8mm thick fixed to internal floor screed with Tal Professional tile adhesive mixed with Tal Bond bonding liquid in lieu of water on concrete surface bed (elsewhere specified), using a Tal notched trowel, with 3mm joints continuous in both directions, and grouted with Tal Professional tile grout. Grouting- Dove Grey mixed with tylon bond – anti-fungicidal solution.

NOTE: COLOURS TO BE CONFIRMED AT SITE HANDOVER



Vinyl Tiles (CSC)

AS A GENERAL RULE, A MAXIMUM DEVIATION OF NOT MORE THAN 3mm OVER AN AREA OF 3m IS A GOOD GUIDE, AND WILL GIVE A QUALITY LEVEL FLOOR (the deviation must not be too close together and too frequent)

Where the screed does not conform to these requirements then a self-leveling screed is to be applied as follows:

All surfaces must be clean, mechanically sound and free of laitance, dust, grease and oil. Vacuum abrasive blast cleaning is the preferred method of surface preparation. Wet grinding followed by vacuuming may also be used. All holes in the concrete or screed which are deeper than 40 mm should be repaired with **Durarep FR** before priming.

VINYL TILES:
Belgotex 2,0mm thick homogenous vinyl composite quartz tile A 400mm Exterior boarder in colour Mining with a Interior colour of Table Mountain- laid on acrylic adhesive spread with a notched trowel on suitably prepared cement screed floors with a hygrometer reading showing a moisture content of less than 70%, all in accordance with manufacturer's recommendations.

Colours:

- Interior: Table Mountain |2mm

- Exterior: Mining |2mm

Vinyl Tile (Lecture Room)

AS A GENERAL RULE, A MAXIMUM DEVIATION OF NOT MORE THAN 3mm OVER AN AREA OF 3m IS A GOOD GUIDE, AND WILL GIVE A QUALITY LEVEL FLOOR (the deviation must not be too close together and too frequent)

Where the screed does not conform to these requirements then a self-leveling screed is to be applied as follows:

All surfaces must be clean, mechanically sound and free of laitance, dust, grease and oil. Vacuum abrasive blast cleaning is the preferred method of surface preparation. Wet grinding followed by vacuuming may also be used. All holes in the concrete or screed which are deeper than 40 mm should be repaired with **Durarep FR** before priming.

VINYL TILES:
Belgotex 2,0mm thick homogenous vinyl composite quartz tile in colour of Table Mountain- laid on acrylic adhesive spread with a notched trowel on suitably prepared cement screed floors with a hygrometer reading showing a moisture content of less than 70%, all in accordance with manufacturer's recommendations.

Colours:

- Interior: Table Mountain |2mm

Vinyl Tiles –(VFF)

AS A GENERAL RULE, A MAXIMUM DEVIATION OF NOT MORE THAN 3mm OVER AN AREA OF 3m IS A GOOD GUIDE, AND WILL GIVE A QUALITY LEVEL FLOOR
(the deviation must not be too close together and too frequent)

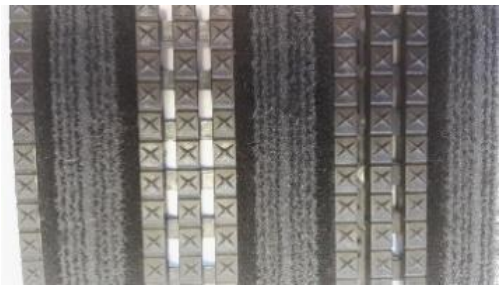
Where the screed does not conform to these requirements then a self-leveling screed is to be applied as follows:

All surfaces must be clean, mechanically sound and free of laitance, dust, grease and oil. Vacuum abrasive blast cleaning is the preferred method of surface preparation. Wet grinding followed by vacuuming may also be used. All holes in the concrete or screed which are deeper than 40 mm should be repaired with **Durarep FR** before priming.

VINYL TILES:
Belgotex 2,0mm thick homogenous vinyl composite quartz tile in colour of GANSBAAI- laid on acrylic adhesive spread with a notched trowel on suitably prepared cement screed floors with a hygrometer reading showing a moisture content of less than 70%, all in accordance with manufacturer's recommendations.

Colours:

- Interior: Gansbaai |2mm

	ENTRANCE MAT: (Administration Foyer- to the external side)
	Supply and install 'POLYFLOR' PolyWay double sided entrance matting, non-slip primary barrier mat/tile format in either 17mm thick open or closed construction. Aluminium base supported by nylon/rubber bridging strips with PVC spacers, supplied in a matwell aluminium frame to mat perimeter. Colour: Grey. Sunken matwell surface frames manufactured and supplied in kit form with all components as per order to be installed according to manufacturer's instructions. SIZE: 2 x (2400 (l) x 2000 (w))- to be shaped according to vinyl pattern. Fitted to external side of Administration entrance under the covered roof area. 

	GRANO FLOOR FINISH
	Granolithic screed finish to floors, treads of steps, thresholds and similar surfaces shall, unless otherwise specified, not be less than 25 mm thick. The granolithic screed shall be composed of three parts granite, or other approved hard stone chips, or approved hard, coarse sharp washed granitic or quartzite sand, half part clean sand and one part of cement, hand or mechanically trowelled to a true and smooth surface. No dry cement powder, grout or wet slurry mix shall be applied to the surface. New granolithic screed shall be laid before the concrete surface bed or floor matures in order to allow for proper binding. If this is not possible, then the top of the surface bed or floor shall be hammered, chipped and then cleaned with a wire brush and a coat of neat cement grout applied immediately before the granolithic is laid. The granolithic shall be laid in panels not exceeding 6 m² in area and jointed to lines of panels with V-joints. The joints between the panels shall coincide with joints in the concrete surface bed or floor Granolithic finish to stair risers, sides of curbs and other vertical surfaces shall, unless otherwise specified, not be less than 12 mm thick. All granolithic work shall be done by experienced workmen only and shall be protected from damage caused by rain or other extreme weather for 12 hours after being laid. Protection shall be provided against too rapid drying whilst hardening by means of covering with wet sacks or other suitable material. The screed shall also be protected from damage and discoloration during the progress of the remaining work. Edges of granolithic floor butting against different floor finishes and edges of margins, etc., shall be true and sharp, and shall be protected by fixing temporary wood strips which shall remain in position until the laying of the adjoining floor has commenced. Where a non-slip granolithic floor finish is required, the granolithic shall be laid as specified above. Alundum grit shall then be sprinkled over the surface at the rate of 1 kilogram per square meter, lightly tamped in and allowed to set.
	POWERFLOATED CONCRETE (Cells & Offloading areas)
	Power floated concrete slab to a smooth finish, all to Engineers specifications- using steel/ wooden trowel grano finish with a 250mm high monolithic upwards sloping concave skirting. Polish floors using diamond plant machinery to get consistent smooth finish. Finish with Waterproof Sealer
	ROUGH FINISH (Cell exercise yard)
	Bare concrete brushed finish cast in panels of not more than 20sqm.

	ARTIFICIAL GRASS **COURTYARD/ VICTIM FRIENDLY OUTSIDE PLAY AREA**

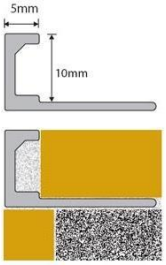
Leisure 20 mm

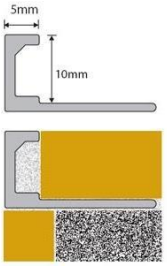
Pile Height: 20 mm (± 1 mm)
Fibre Type: Polyethylene with Polypropylene Root Zone
Fibre Shape: Contoured
Colour: Natural
Application: Playground, Indoor, Gardens, Landscaping, Rooftops
Product Requirement: Child Friendly, Pet Friendly
Roll Width: 4m
UV Warranty: 10 Years
Guarantee: 5 Years

Laid on 25mm screed to fall

	PAVING: PATHWAYS
	Nougat Modular 50mm thick interior with a double brick Graphite Modular 50mm thick boarder with average compressive strength of slightly less than 36MPa •Nougat Modular 50mm  •Graphite Modular 50mm 
	CELL SHOWER FLOORS
	Shower floors to be waterproofed with Durafkex “ABE” product or similar & approved. All applied to manufacturers specifications allowing drying time between coats

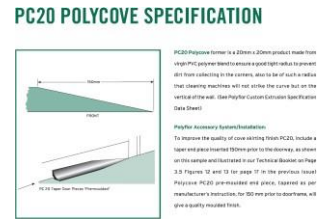
	Waterproofing to screed BEFORE laying of floor tiles
	Ensure screed is dry before waterproof application. All surfaces must be free from oil, grease, wax, dirt or may other form of foreign matter that might affect adhesion. Repairs can be carried out using Duraflex or ABE or equal and approved repair. All visible cracks to be attended to before applying any waterproofing. Apply cementitious flexible waterproofing slurry (a synthetic resin dispersion)- Duraflex or equal and approved. Adhesive to have the following properties: - high bond strength - excellent freeze/ thaw resistance - good abrasion resistance Mixing: use a mechanical mixer (slow speed electric drill fitted with a suitable paddle) as per manufacturer's application instructions. Coverage: 8m²/ 15kg for 1mm wet film thickness- a minimum coverage of 2kg/ m²/ mm applied in not less than 2 coats as recommended. Application: <u>Block Bruch:</u> use a block brush and apply in 3 x coats to provide a final dry film thickness of between 2 to 3mm on the surface. Apply alternative coat to be applied at right angles to wach other allowing a minimum of 4 hrs at 20 °C/ 50 % RH curing between coats. <u>Trowel:</u> Horizontal surfaces- the 1st layer to be applied to a thickness of 1 – 1.5mm. Allow a minimum of 4hrs at 20 °C/ 50 % RH curing between coats then apply a second layer using steel float. NOT to be applied thicker than 1.5mm PER coat <u>Joints:</u> Relevant mesh applicable to the product to be incorporated to reinforce the Duraflex at joints and cracks- the mesh to bedded into the 1st coat while still wet. Immediately after placing apply a further thin coat to 'wet' out the mesh Allow the 1st coast to set before applying the 2nd coat

	Screed to fall
	New granolithic floor finish on concrete surface bed cast in panels of not more than 20sqm as per Structural Engineers specifications. Rolled with sponge roller to create ripple affect
SKIRTING	
CODE	**TREATMENT**
	No Skirting
	Floor and wall junctions to be finished neatly 90°. No unevenness to be visible
	Grano Skirting
	Form 90mm high grano skirting with 90° finish at the top 10mm from wall finish. 90mm high monolithic upwards sloping concave skirting
	Wall Skirting Tile – CERAMIC TILE 150mm high x 600mm wide
	CERAMIC TILES Ceramic tiles with 4 PEI Rating, size 300 x 150 (h) x 8.5mm thick, fixed to internal wall plaster with Tal Professional tile adhesive mixed with Tal Bond bonding liquid in lieu of water on concrete surface bed (elsewhere specified), using a Tal notched trowel, with 3mm joints continuous in both directions, and grouted with Tal Professional tile grout. Grouting- Dove Grey mixed with tylon bond – anti-fungicidal solution. ***NOTE: TILE SKIRTING TO MATCH FLOOR TILE*** The top edge of the tile skirting is to be finished with the following edge trim: M•Trim Aluminium anodised 10mm high Elite straight edge trim (Code: AESE100.CBZ), bedded in tile adhesive while tiles are laid.  

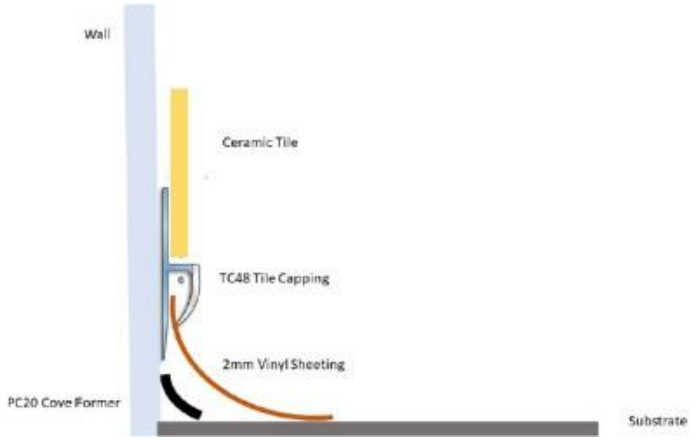
	Wall Skirting Tile – PORCELAIN TILE 150mm high x 600mm wide
	Non- slip porcelain tiles: Pig. Granito Preto 75N with 4 PEI Rating, size 600 x 150 (h) x 8.5mm thick, fixed to internal wall plaster with Tal Professional tile adhesive mixed with Tal Bond bonding liquid in lieu of water on concrete surface bed (elsewhere specified), using a Tal notched trowel, with 3mm joints continuous in both directions, and grouted with Tal Professional tile grout. Grouting- Dove Grey mixed with tylon bond – anti-fungicidal solution. ***NOTE: TILE SKIRTING TO MATCH FLOOR TILE*** The top edge of the tile skirting is to be finished with the following edge trim: M•Trim Aluminium anodised 10mm high Elite straight edge trim (Code: AESE100.CBZ), bedded in tile adhesive while tiles are laid.  

Wall Skirting Tile – 150mm – STAFF RESTROOM SHOWERS

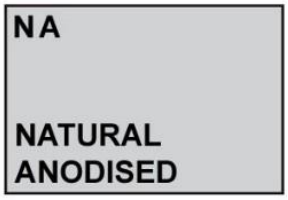
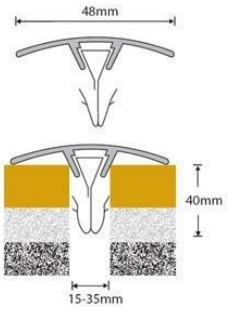
Polyflor Polycove cove former colour Black (Code: PC20), size 20mm high x 20mm wide, installed in accordance with manufacturer's specifications.



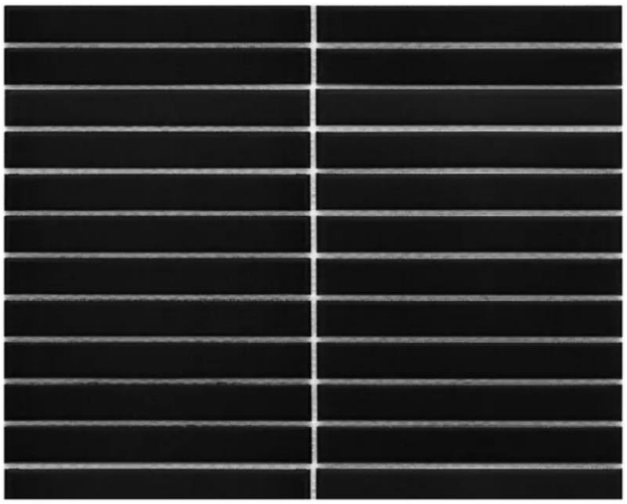
TC48 Tile/ Vinyl Capping as a barrier/ separator between vinyl skirting & wall tiles

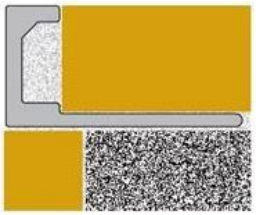


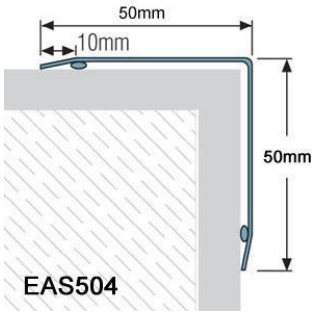
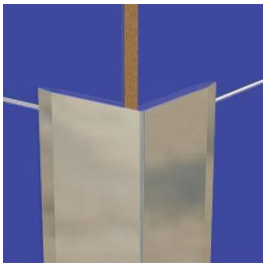
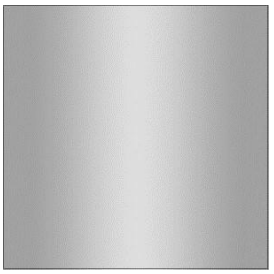
	CELLS- Skirting (general areas)
	Form 250mm high monolithic upwards sloping concave concrete finish skirting with 90° finish at the top 10mm from wall finish
	CELLS- Shower skirting
	Form 250mm high monolithic upwards sloping concave concrete finish skirting with 90° finish at the top 10mm from wall finish. Shower skirtings to be waterproofed with Duraflex “ABE” product or similar & approved. All applied to manufacturers specifications allowing drying time between coats. Shower to be provided with a 170mm threshold
	CELL Security Passage
	The floor to be finished with a wooden trowel grano finish with a 250mm high monolithic upwards sloping concave skirting. The floor to fall towards the seep holes of the external wall OR covered floor drains within the passage with outlets to the exterior. Fit galvanized lid over drain bolted onto the drain/ floor framework. The FFL of the passage to be at least 85mm lower than the FFL of the exercise yards

WALLS	
CODE	**TREATMENT**
	New plaster for painting
	Ensure that the cement plaster is 12mm thick open textured plaster with a wood floated SMOOTH finish. Prepare new plaster to remove any blemishes, high spots, etc. NOTE: Allow for 75% of all new plastered walls to be skimmed AFTER applying plaster primer. Mix and apply the skim coat, allow to dry for 48hrs & then sand to smooth finish. Sand the fresh plaster & ensure the plaster is dry. Fill all cracks using Sika PRO 684/ 1 filler & sand smooth. Apply 1 x coat TP Masonry Primer. Paint (enamel) two coats above in colour Plascon silver or similar approved by architect  Walls 2.1m above floor height
	SKIMMED PLASTER
	Prepare the surfaces. Apply one coat of Professional Gypsum and Plaster Primer (PP700) to achieve a continuous film. Allow 16 hours to dry. Apply two full coats of Professional Super Matt (PEM 900) to achieve complete obliteration, allowing 1 hours drying between coats. Finish: Plascon Wall & All, PRODUCT CODE: **WAA** (Smooth Finish - Waterbased, premium pure acrylic – LOW sheen). Colour to be specified by the architect.
	Wall expansion joint cover
	M•Trim natural anodised 48mm wide aluminium structural wall joint cover flexible PVC hospital infill (Code : ASCW480), fixed in wall expansion joint with four steel spring clips per 3m length.   

	BRICKWORK
	Type A- Corojem Nebraska FBS for exterior walls as well as in a Protrusion pattern brick wall for the Main signage wall and the CSC under counter wall  Type B- Platinum Travertine FBX: 900mm high plinth & feature walls  Type C- Interior face brick to be Buff travertine FBS till door height and then plaster and paint till ceiling (paint colour in Plascon silver) 

WA08	**WALL TILES- Ablutions**
	200x200 CERAMIC TILES Shiny white ceramic tile 200 x 200 mm 4 PEI Rating, size 200 x 200 x 8.5mm thick, fixed to internal wall plaster with Tal Professional tile adhesive mixed with Tal Bond bonding liquid in lieu of water, using a Tal notched trowel, with 3mm joints continuous in both directions, and grouted with Tal Professional tile grout. Grouting- white mixed with tylon bond – anti-fungicidal solution. ***NOTE: COLOURS TO BE CONFIRMED AT SITE HANDOVER*** LISTELLO : CERAMIC WALL TILES positioned as per room data sheet heights. • Kitkat Matt Black Porcelain Mosaic - 70 x 296mm 8.3mm thick fixed to internal wall plaster with Tal Professional tile adhesive mixed with Tal Bond bonding liquid in lieu of water, using a Tal notched trowel, with 3mm joints continuous in both directions, and grouted with Tal Professional tile grout. Grouting- charcoal mixed with tylon bond – anti-fungicidal solution. 

	WALL TILES- Kitchen splashbacks
	 Valencia Bevelled Glossy White Ceramic Subway Wall Tile - 200 x 100mm fixed to internal wall plaster with Tal Professional tile adhesive mixed with Tal Bond bonding liquid in lieu of water, using a Tal notched trowel, with joints to match mosaics and laid continuous in both directions, and grouted with Tal Professional tile grout. Grouting- Light Grey mixed with tylon bond – anti-fungicidal solution. Wall tiles positioned above kitchen counter tops- neatly finished below the kitchen top hung cupboards. The wall tiles to return 600mm on the end walls and the exposed vertical edge finished using: **M•Trim aluminium anodised high Elite straight edge trim, bedded in tile adhesive while tiles are laid.**  
	WALL CORNER PROTECTORS:

	Genesis interior retro-fit aluminium corner protector in Matt Silver finish (Code: EAS504), size 50 x 50mm onto vertical brick surface/ plastered surface, fixed to substrate with silicone adhesive & recessed screws    Quantity: - Ground Floor x 58 - First Floor x 9 REFER TO ARCHITECTS DRAWINGS

	CELL BLOCK WALL BRICK STRUCTURE
	230mm walls: high tensile steel mesh of 100mm x 200mm x 5mm thick built into cells, cell yards, kitchen, pantry and visitors' areas- built between brick skins to the PERIMETER walls of cells. Walls behind WC's to be 330mm thick built to sill height with steel mesh built between the brick skins
	CELL BLOCK PAINT
	Heavy duty, light colored oil base coatings- Colour: Light Grey Approved undercoat Alkali resistant primer (NO CONTRACTORS PVA) Underside of concrete slab to be painted white
	CELL SHOWER WALLS
	Walls to be waterproofed with Duraflex "ABE" product or similar & approved. All applied to manufacturers specifications allowing drying time between coats

	CELL EXERCISE YARDS/ KITCHEN YARD
	Cell Yard wall heights built to minimum 4500mm high Parapet walls ended with header course Wall finish: facebrick Joints: 8mm flush joints Last 8 x inner brick layers of the 230mm walls to be SOLID brickwork, applicable to following areas: - Cell exercise yards - Kitchen yard - Cell passage - Maintenance passage - Off- loading area Note: if hollow bricks are used, holes must be filled with cement mortar to ensure that mesh screens can be properly installed at minimum height of 4000mm from FFL
	CELL SECURITY PASSAGE
	The height of the walls of the passage to be minimum 3000mm high The walls to be flush jointed- smooth face brick
	CELL KITCHEN AND PANTRY
	Walls painted using Alkali resistant primer followed by 2 x coats heavy duty, enamel coating. Colour: light Grey
	VISITORS ROOM/ PRISONERS PROPERTY STORE/ ADMITTANCE AREA/ TEMPORARY HOLDING CELL
	Walls painted using Alkali resistant primer followed by 2 x coats heavy duty, enamel-based coating. Colour: light Grey
	BLANKET STORE
	Walls painted using Alkali resistant primer followed by 2 x coats heavy duty, enamel coating. Colour: light Grey Build in vent bricks at both high & low levels: total x 10
	ADMITTANCE AREA
	230mm brick walls with approved high tensile steel mesh built in between the brick skins.
	TEMPORRAY HOLDING CELLS
	230mm brick walls with approved high tensile steel mesh built in between the brick skins. Front face: to be manufactured of 16mm round bar framework, 90mm centre to centre with steel bracing and a grill gate similar to the cells
	SECURED SERVICE DUCT
	230mm face brick walls of approx. 3m high with FLUSH joints. Walls to be built in 3000mm segments with expansion joints between sections. A 460mm facebrick column to be built on each end of segment
	SECURE OFF- LOADING AREA
	The height of the walls to be minimum 3500mm high. The vehicle entrance minimum 3000mm high x 4250mm wide The walls to be flush jointed- smooth face brick

	Refuse and Generator  Joints: 8mm flush joints

DOORS	
CODE	**TREATMENT**
	Doors: aluminium
	Refer to Door Schedule: (colour to architect specs- charcoal) powder coated aluminuim door and frame fitted as per manufactures specification all as per AAAMSA specification 
	Doors: timber doors- sealed
	Timber doors to be varnished with woodoc 55 Gloss
	Doors: timber doors- painted
	Prepare: ensure that surfaces are dry, sound and clean. Sand wood to a smooth finish with 150 grit paper in the direction of the grain. Sharp edges must be rounded off. Dust off. Fill holes and other surface defects with woodfiller working off smoothly while wet. Allow 8 hours to dry, then sand to a smooth finish. Dust off. Wipe knots and resinous areas with Plascon Lacquer Thinner (ILS 1). Apply Plascon Woodcare Knot Seal (PK 2) to all knots and resinous areas. Allow 1 hour to dry. Apply one coat of Wood Primer (UC2) to achieve a continuous film. Allow 16 hours to dry. Apply two full coats of Universal Enamel (NY 1/G) to achieve complete obliteration, allowing 16 hours drying between coats. Finish: Waterbased Velvaglo PRODUCT CODE: **VLW** Premium Quality Satin Finish Non Drip Waterbased Enamel. Colour to be specified by the architect.
	Doors: fire doors
	Fire doors to be fire rated with veneer finish The steel frame should be finished off in two coats off enamel paint. Colour to be selected by architect. See door schedule
	External Gates (Entrance gates/ Refuse gates)
	Hot-dipped galvanized steel gate to detail
	GENERATOR ROOM DOORS

	Galvanised Generator room doors as per door schedule.

	Cell Doors and Gates
	NOTE: Door, gate and frames as per door schedule are delivered to site as one unit & welded closed- under NO circumstances may the doors be cut open UNTIL after they have been built in completely and ONLY after 10 days settlement, is the Architect requested to issue a Site Instruction to cut open the unit. DOORS to be built in BEFORE the windows OR one window PER cell is not to be built in until AFTER the door has been built in NOTE: ONLY the Station Commissioner of the station MUST take possession of the keys of the locks. Keys to be handed over in a SEALED envelope & signed for
	SHOWER DOOR
	White powdercoated aluminium framed shower enclosure, overall size 900 x 1800mm high, glazed in stipolyte toughened safety glass, complying with SANS 1263 Part 1, 2 or 3 with name of the manufacturer permanently marked on each sheet visible after glazing, in accordance with NBR Part N schedule 1 and SANS 10137:2002, all fixed complete to walls including pointing all round both sides of frame, all in accordance with AAAMSA Selection Guide for Glazed Aluminium Architectural Aluminium Products - June 2004. • Enclosure type: framed shower enclosure • Glass: stipolyte.

	RECORDS ROOM DOOR
	Refer to Door Schedule 
	SECURITY DOOR
	Solid 2hr fire rated slatted solid door Refer to Door Schedule
	ROLLER SHUTTER SECURITY DOOR
	Vertical roller shutter industrial door with pull chain for opening and closing Size: Refer to Door Schedule 
	CELL OFF- LOADING SLIDING GATE
	Sliding gate: refer to Architects drawings Finish: galvanized Manufactured to SAPS drawing: POL2012/D6

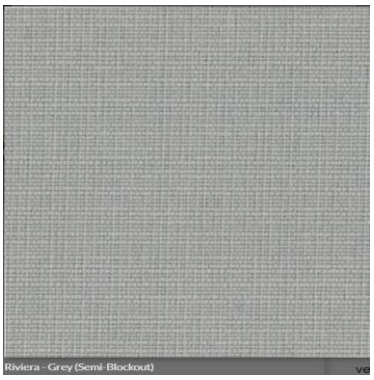
WINDOWS	
CODE	**TREATMENT**
	Aluminium windows
	Refer to Window Schedule (colour to architect specs- charcoal) powder coated aluminuim windows fitted as per manufactures specification all as per AAAMSA specification 
	Burglar Bars
	Ground floor external windows to get horizontal galvanized burglars primed and finished with 2 x coats charcoal hammerite paint: Burglar bars made as follows: - 25 x 25mm square tubing welded onto 50 (l) x 25 (w) x 3mm plate to one side bolted to wall reveal- bolt head spot welded - 50 (l) x 25 (w) x 3mm plate welded onto 20 x 20 x 3mm square tubing 80mm long. Bolted into position onto wall reveal- bolt head spot welded

	CELL BLOCK: Windows + burglar bars wire mesh with screen frames
	Wire mesh and expanded metal screens to all internal & external windows as per specifications- type FLATEX/ 345 (Pigmesh): - Expanded metal- 3mm thickness - Web width 10mm - Openings of 10mm x 40mm Opening in the screens for opening of windows- finished to ensure NO sharp extrusions exists. Screen openings ONLY on the inside screens of windows (NO openings on outside screens). Refer to STANDARD SAPS working drawings (POL2012/W1 to W3) Screen FRAMES to be according to STANDARD SAPS working drawings (POL2012/W1 to W3). Heavy- duty locks to be included ALL on a master key system. NOTE: ONLY the Station Commissioner of the station MUST take possession of the keys of the locks. Keys to be handed over in a SEALED envelope & signed for OR ALTERNATIVELY: M10 x 30mm long bolt and nut can be used and tag welded instead of pad locks (to be confirmed). Glazing: cell windows to be 6.5mm clear laminated glass. All steel (windows & mesh) to be hot dipped galvanised- left unpainted and welding joints to be cold galvanized on site Glazing putty to be painted with silver enamel paint. Window/ Screen heights: a) External facing walls: 2 x brick courses are to be left between underside of the concrete ceiling & window soffit b) Walls between Cell & Cell Yards: installed at a soft height of 2100mm from FFL NOTE: AT LEAST 1 x WINDOW PER CELL NOT TO BE INSTALLED UNTIL AFTER THE CELL DOOR & GATE HAVE BEEN BUILT IN AND ALLOWED TO SET

	Cell Kitchen and Pantry
	Cell windows have to be built into the walls between the kitchen & the yard at a soffit height of 2100mm.
	Visitor's Room/ Detainees Room
	Conventional window to external wall- refer to detailed drawings Security window between the 2 internal areas
WINDOW CILLS	
CODE	**TREATMENT**
	Facebrick Cill (internals)
	Header facebrick cill –Buff travertine with 8mm joints Type C- Interior face brick to be Buff travertine FBS 

JOINERY	
CODE	**TREATMENT**
	New Joinery
	Refer to joinery details:  Brookhill fusion board for joinery  • 96mm Black slim line handles for cupboards General Notes: - 3mm PVC black impact edging to all drawer & opening door units - 1mm PVC black impact edging to all fixed units facing outwards (ie shelves, etc) - White internal carcass - Galvanized/ Aluminium drawer 500mm ball bearing runners. 45mm Clover Full Ext Rai - Galvanized/ aluminium door hinges
	Counter Tops- Granite (Service Point Desks)
	30mm Rustenberg granite tops front bullnose edges 
	Counter Tops- Quartz (Kitchen Counters)

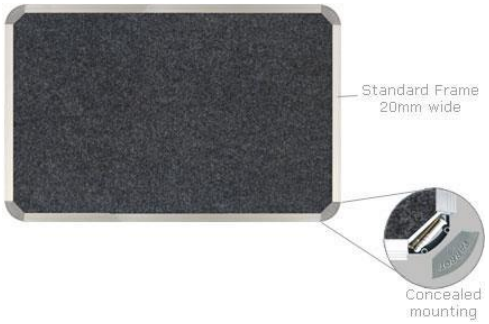
	Quartz D90mm X H20mm Vanilla Black with bullnose front edge 

	Bolted steel Shelving – 6 shelves – Uni angle – six shelf kit – galvanized -182.9 x 61 BS-G-1.8-610-6
	 All manufacturing and installations as per manufacturer's specifications Dimensions to be obtained from the Architect's Room Data Sheets
BLINDS	
	NEW HORIZONTAL ROLLER blinds
	Blinds Premium (G2) 2400 Roller blind colour Riviera - Grey with stainless steel chain mechanism with right/ left hand side chain control (to be confirmed on site) , size between 1500 to 2450mm wide x 2300mm drop, face fixed in accordance with manufacturer's recommendations. 

CEILINGS	
	Vinyl faced Suspended Ceiling
	Suspended acoustic ceiling boards similar or equal to 'isover Soundlite coral' by gyproc saint-gobain, in 40mm thick, 595 x 1195mm panels fixed with hold down clips to an open suspended T-grid system similar or equal to don qrc t37v / 38v. Installation to be according to manufacturer's specifications. 100mm thick thermal blanket by specialist all to sans10400xa.Minimum requirements.600 x 600mm ceiling boards installed onto exposed grid system including hold down clips, wedges, reinforcement spines, etc. Ceiling grid to be able to take 14kg/ m^2
	PVA PAINT TO SOFFIT TO R.C. SLABS AFTER SKIMMING
	Skim underside of concrete soffits: Apply 15mm thick smooth plaster composed of 1 part cement and 5 parts sand; with a step trowelled finish to brickwork and concrete, with 'V' joints cut into junctions between the two OR to be skimmed/ plastered with 6mm thick Rhinolite gypsum skim plaster applied as per manufacturer's instructions should smooth plaster finish not be acceptable Ensure surfaces are dry and sound. Paint Specification: New soffit surfaces to be cleaned and dry when painting. Apply Coat 1: Duraseal plaster primer code (Alkali resistant primer- NO CONTRACTOR"S PVA): M371-2220 thinned 10% with turps. Coat 2: Dulux Dura 65 full coat code: M370-1600; Coat 3: Dulux Dura 65 full coat code: M370-1600. Apply paint with ready for use brush or roller. Recoat 4 hours. Approx 5-9m/L. Rough surfaces to be rubbed down and skimmed where applicable. Or Equally approved. Colour: WHITE

	Cell Exercise Yards/ Kitchen Yard
	Approved high tensile metal mesh screen installed at a min 4000mm from FFL (refer to drawing POL 2012/ G1) A 3mm solid steel plate of at least 1.2 x 1.2m to be welded to the mesh, over ALL door openings into the cell yard (refer to drawing POL 2012/ G) NOTE: all steel to be hot dipped galvanized and welding spots to be finished with cold galvanizing on site Approved Type Mesh: • Galvanized Carbon Hardened Woven Steel Mesh (Screenex) • Mesh Aperture: 10 x 10mm • Wire Diameter: 4.8mm • Coating: High Carbon (Spring Steel) Hot Dipped Galvanised SABS 763 (before weaving) ISO 1461 • Weave Type: SW • Company: Screenex wire Weaving Manufacturers 358 Betafence Doubleskin (Zincalu) Welded Mesh • Mesh Aperture: 8.7mm x 8.7mm • Wire Diameter: 3.96mm Zincalu • Company: Betafence
	CELL SECURITY PASSAGE
	The passage to be covered with a conventional roof structure BUT using “Mentex 70” mesh screen as a ceiling- minimum height of 2700mm from FFL (refer to drawings POL 2012/G1)
	ADMITTANCE AREA/ TEMPORRAY HOLDING CELL
	Concrete ceiling at 3000mm above FFL
	SECURED SERVICE DUCT/ SECURE OFF- LOADING AREA
	“Mentex 70 steel mesh hot dipped galvanized (refer to drawings POL 2012/G1) built in over entire duct- to Engineers details

CORNICE	
	Aluminium shadow line cornice:
	Aluminium shadow line cornice 20 x 20mm

OTHER	
	Pinning Boards (TOTAL: x30)
	1 x 1500 x 1200mm BULLETIN BOARD with Standard 20mm wide alum frame with concealed mounting & Carpet finish- Colour: Charcoal  Applicable Rooms: - Boardroom/ Lecture Rooms - Staff Rest Rooms - Offices - Radio Control Room - Sensitive Statements - Service Point - Staff Passages - Administration Area of cell block- behind counter
	White Boards (TOTAL: x6)

	1 x 1200 x 900mm Slimline Magnetic Whiteboard Bundle with Black Pin Board  Applicable Rooms: - Boardroom/ Lecture Rooms - Station Commander's Office - CSC Commander's Office - Service Point - Radio Control Room - Treatment Room

NOTES FOR THE CONTRACTOR:

ALL steelwork and door frames to be inspected by 'EXPERT SERVICES' at manufacturer's premises BEFORE galvanizing. SAPS to supply a certificate of approval. Should the Contractor fail to inform the Principal Agent in writing for the invitation for SAPS formal inspection and proceeds without an inspection from SAPS, the Contractor will be liable for any work that will need to be redone.

Manufacturers of cell windows, using manganese bars and overhead screens for the entire cell complex have to submit certificates from material suppliers stating that correct material used as specified in the 5- Star specification 2012 BEFORE payment certificate can be issued.

The Contractor will be held responsible and liable for any deviations and additional costs due to any unapproved deviations from the 5 Star specification.

Contractor to familiarize with all Architect's working drawings INCLUDING the 2012 version of the 5 Star specification

GENERIC SPECIFICATION: EXTERNAL FINISHES

POINTING

Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed.
Sample walls to be provided by contractor for approval BEFORE commencing with main walls

BRICKWORK IN FOUNDATIONS

Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar.

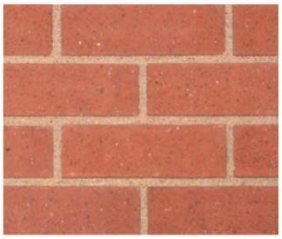
BRICKWORK IN SUPERSTRUCTURE

Brickwork of FBX bricks (14 MPa nominal compressive strength) in Class II mortar.

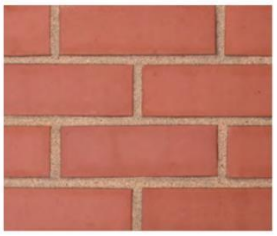
Vertical Joints & horizontal Joints: joint forming material in movement joints to be Sondor performance foams Jointex with Sikaflex AT façade movement joint sealant & Sika primers as per attached detail.

Mortar Joints: 8mm

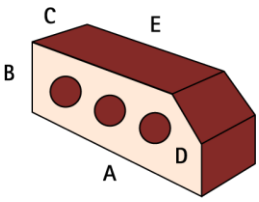
Main Wall- FBX- 222 x 106 x 73mm (51 bricks per m²)



Window Reveal & Cills- FBX- 222 x 106 x 73mm (51 bricks per m²)

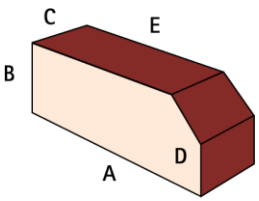


A 222mm
B 106mm
C 73mm
D 48mm
E 164mm



Single Cant

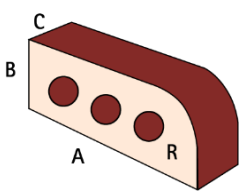
A 222mm
B 106mm
C 73mm
D 48mm
E 164mm



End Single Cant solid brick

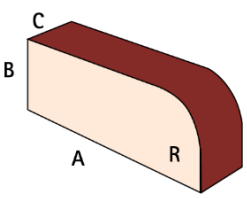
Wall corner junctions- FBX- 222 x 106 x 73mm (51 bricks per m²)

A 222mm
B 106mm
C 73mm
R 53mm



Bullnose brick

A 222mm
B 106mm
C 73mm
R 53mm



End Single Solid bullnose brick

DAMPROOFING TO WALLS & FLOORS

Under surface beds: 500 micron polytheme sheet membrane as per engineer's specification.

Below walls & window sills, etc.: One layer of 375 micron embossed damp course waterproof sheeting.

FAGGOT BRICKWORK TO SUPERSTRUCTURE

Fit 50mm x 200mm x 10mm galvanized 'L' – angle to wall as per Structural Engineers specifications. 200mm 'L-angle' upstand to be recessed into the plaster (plaster cut at existing areas)
Lay 'brick faggots' with 1st row starting ontop of 'L-angle' in accordance with good building practice.

Brickwork of FBX bricks (14 MPa nominal compressive strength) in Class II mortar.

Mortar joints: 8mm

Vertical Joints & horizontal Joints: joint forming material in movement joints to be Sondor performance foams Jointex with Sikaflex AT façade movement joint sealant & Sika primers- positions as specified by Structural Engineers.

Colour: Corobrick Roan Travertine- FBX- 222 x 106 x 73mm (51 bricks per m²)

QUANTITY (still to be confirmed)

CILLS

C1 EXTERNAL CILL – Face Brick walls
Brick- on- edge laid into mortar ontop of 375 micron damp course waterproof sheeting wrapped back behind cill brick to underside of window section.
NOTE: use SOLID facebrick cills on EITHER ENDS- refer to WA07

GENERAL

DAMP PROOF COURSING:

To be Gunplas Black Brickgrip or equal approved 375 micron DPC, lapped a minimum of 150mm at all joints, and similarly lapped over under -floor damp proof membrane where applicable.

DPC's IN CAVITY CONSTRUCTION:

Stepped dpc on concrete fillet: stepped to 1 course to outer skin of external wall. Form wheepholes at 1m increments (Entire brick to be left out & only built in at end once cavities have been cleaned.

UNDER CILL DPC (IN CAVITY CONSTRUCTION):

Minimum 150mm wide, to be tucked under window section and then stepped towards outer wall & sandwiched in mortar a course below window cill brick on edge

VERTICAL WALL DPC (IN CAVITY CONSTRUCTION):

Minimum 150mm wide adjacent windows, to be tucked into side of window and sandwiched in mortar between outer skin and cavity closer and to overlap lintel and cill DPC`s.

DPC's AT LINTEL:

To be inserted above all windows, stepped up one course and build into inner skin coursing with mortar fill under all as detailed mortar fillet

BRICKFORCE:

230mm brick walls to have 150mm brick force every 3rd brick course.
270mm cavity brick walls to have 75mm brick force every 3rd brick course in both internal and external brick skin.
110mm brick walls to have 75mm brick force in every 3rd brick course.

Brick force in every brick course above window height up to wall plate level.

BRICKSEAL TO EXTERNAL BRICKWORK:

ALL external brick walls to have 'ABE' brick seal applied to outer edge of inner skin

The external facing of the internal brick skin to be bagged with a cement/ sand slurry mix, applied using a block brush to the wall. When dry, apply 2 x coats black brick seal.

CAVITY WALL CONSTRUCTION:

Cavity walls shall be built with two half brick thicknesses of brickwork in stretcher bond with approx. 50mm cavity between, and the two thicknesses tied together with 200 mm long metal wall/ butterfly ties evenly spaced at not less than the rate of 9 ties per m² of face area. The ties shall comply with the requirements of SABS Specification 28 and be of the Butterfly Type only.

The cavities shall be carried up from 1 course of brickwork below damp course level up to two courses below roof plate level. The brickwork above cavities shall be built solid and where 270 mm thick shall be cut and well bonded where possible.

The cavities shall be kept free of all rubbish, mortar droppings and projecting mortar.

The tops of walls shall be covered with planks or sacking during wet weather to prevent rain from entering the cavities.

Form weep holes in outer skin of external cavity walls by leaving the perpendicular joints open, one every 1 m apart in the second brick course above the damp-proof course.

The cavities shall not be ventilated.

At door, window and other openings the cavities shall be stopped 110mm back from jambs of openings with the inner thickness of brickwork returned and stopped against the outer thickness and not bonded to same. A 100 mm wide strip of damp-proof sheeting shall be built into the joint formed between the return and the outer thickness. Each damp-proof strip shall be lapped at least 50 mm on to the damp-proof course between the two wall thicknesses of sills and between the two wall thicknesses of lintels.

Sills of windows shall be divided into external and internal thicknesses with strips of damp-proof sheeting as above, built in line with the damp-proof sheeting in jambs and extending 100 mm beyond the jambs of openings.

The lintels shall be provided with damp-proof sheeting as described under lintels.

Cavities shall be stopped 1 course below and 1 course above and 110 mm from sides of openings for air bricks and the like.

BEAM FILLING:

Beam filling shall be half brick thick, built up in mortar as used in the walls below, cut in between roof timbers and carried hard up to underside of roof covering and flushed up with mortar.

FIRE:

Fire-resistance rated walls and floors:

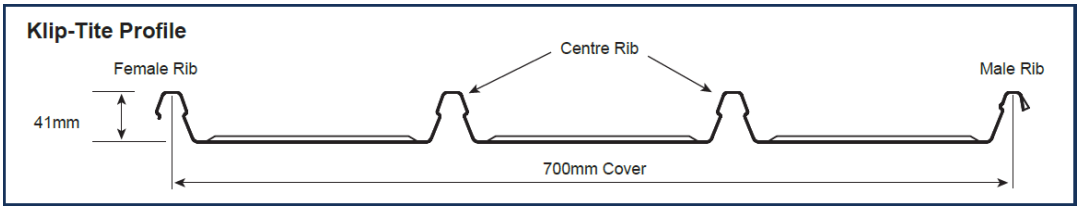
Intumescent coating 500mm either side of the service
(*intumescent coating is* ***a layer of protective substance which works by chemical reaction generated by heat****, resulting in swelling and formation of an insulating layer on the surface, with or without release of water)*

Ducting: install fire dampers
(those with an actuator, which are motorized, and to which you can connect a smoke detection system)

ROOF SHEETING: KLIP-TITE™ PROFILED SHEETING AND ACCESSORIES

SHEETING

The roof sheeting shall be double-interlocking concealed-fix Klip-Tite™ profile roll-formed in continuous lengths and cut to length by a pneumatic cut-off process from certified Galvanized 0.58mm steel. A certificate verifying compliance shall be issued by the manufacturer, Global Roofing Solutions. The profile shall be roll-formed with four ribs at centres not exceeding 233mm



and a cover width not exceeding 700mm, the pans/troughs shall incorporate transverse stiffener ribs. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 200mm apart to ensure minimum clipping areas on the side lap, and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 41mm.
Klip-Tite shall be obtained from Global Roofing Solutions Tel: (011) 898-2900

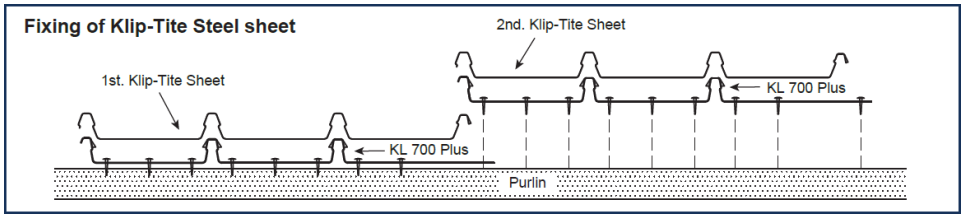
MATERIAL AND FINISH FOR KLIP-TITE™ ROOF SHEETING

Galvanised steel Z200 complying with ISQ 550 (3T) (A653) with an AZ200 Thunderstorm/Heron grey. (a zincalu coating suited for coastal conditions) finish to one side with a Pebble Grey backing coat

FIXING KLIP-TITE™

Maximum Allowable Support Spacings						
Type of Span	0.47mm	0.5mm	0.53mm	0.55mm	0.58mm	0.8mm Aluminium
Roofs						
Single Span	1.300m	1.400m	1.500m	1.800m	1.800m	1.000m
End Span	1.600m	1.700m	1.900m	2.100m	2.100m	1.000m
Internal Span	1.900m	2.000m	2.300m	2.500m	2.500m	1.800m
Cantilever (unstiffened)	0.150m	0.180m	0.180m	0.200m	0.260m	0.100m
Cantilever (stiffened- max. sheet length of 13m)	0.350m	0.400m	0.400m	0.450m	0.600m	*
Nominal Mass kg/m^2	5.1	5.5	5.7	5.75	6.6	2.9

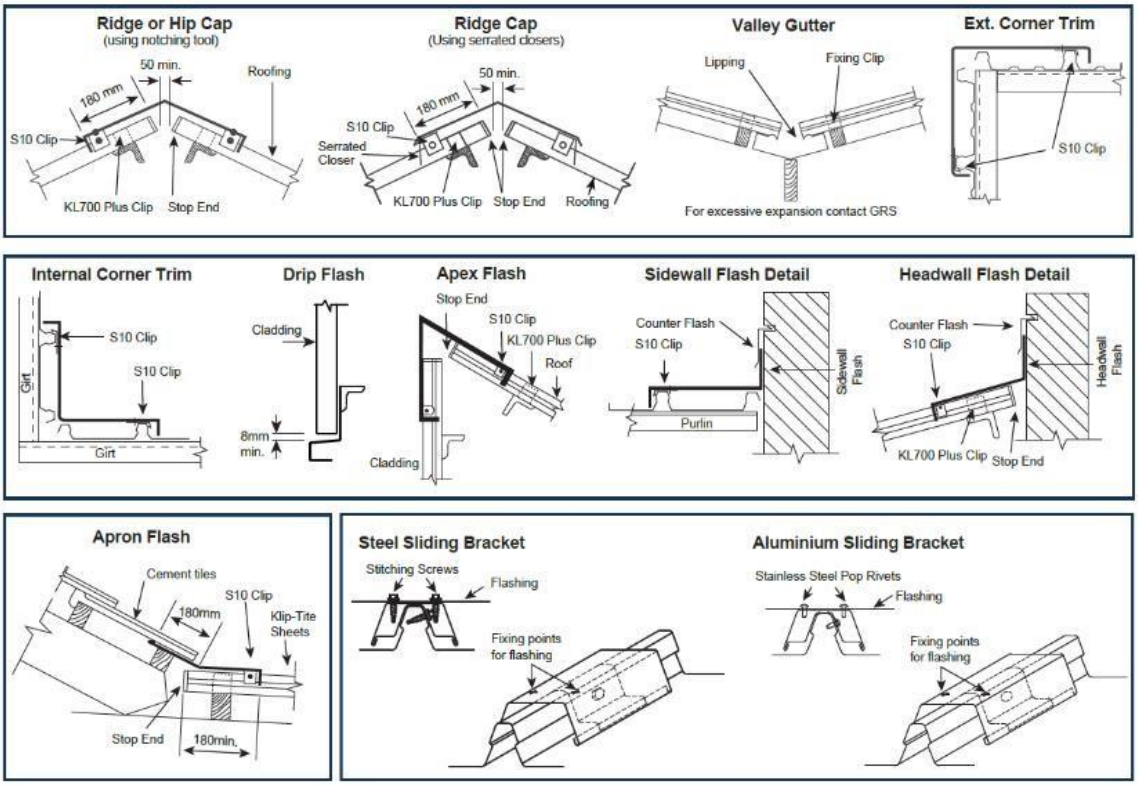
The Klip-Tite™ sheets shall be fixed to every purlin by means of patented KL700 clips having spurs which will securely hold the sheets in position and lock-in the sidelap and both centre ribs. The KL700 clips shall be manufactured from Galvanized steel and shall be fixed with the appropriate self-drilling/tapping screws to steel purlins (selection from installation manual) **OR** with ZAP no. 10x45mm Waferhead screws type 17 to timber purlins.



KLIP-TITE™ FLASHINGS

Flashings specifications shall be to the Global Roofing Solutions standards and fixed to the sheeting with S10 brackets or, Sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet in order to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary. All these operations must be performed with special tools available from Global Roofing Solutions.

Flashings/ Ridging/ Gutters/ Trims to be in accordance with manufacturers specifications



SAFETY
The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.

INSTALLATION
Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces in order to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE
The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION
Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

a. The entire structure or the portion thereof to be sheeted has been correctly aligned, leveled and grouted.
b. Purlins and girts are at the correct spacing and are within the specified tolerances.
c. The corners of the roof are square and the wall framework is perpendicular or as specified.

d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
e. All members to which roofing and cladding are to be fixed in aesthetically sensitive areas are true and square.
f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.
g. The contact faces between the purlins or the girts and the cladding are in the same plane. Should the alignment be inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.

PROTRUSION THROUGH SHEETED SURFACES

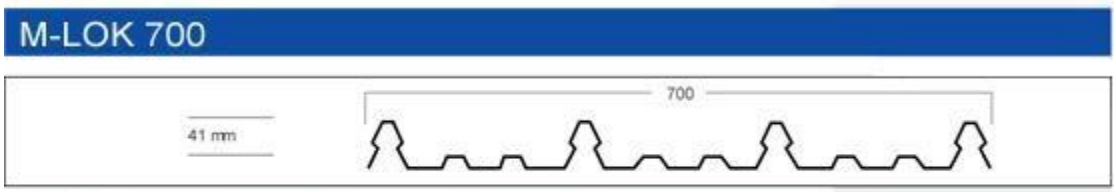
Protrusions such as pipes, ducts and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs have to be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.

GUARANTEE

The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Tite™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS approved contractor. A written and approved five year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.

CLEANING OF ROOF, ETC.

All debris, swarf, etc arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners, sealants, mandrels from pop rivets, off-cuts of sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc.



MATERIAL	THICKNESS		COLOUR	
PC	1.00mm	1.20mm	OPAL 50	CLEAR

Colours and Light Transmission Properties					
Colour	LT % Light Transmission	LR % Light Reflection	ST % Solar Transmission	SHGC Ratio Solar Heat Gain Coeficient	R Value Thermal Resistance
Clear	90	10	86	1,00	0,83
Bronze	50	7	54	0,75	0,84
Opal 70%	70	79	71	0,60	0,87
Opal 50%	50	55	51	0,55	0,87
Diffused Opal	70	82	79	0,65	0,84
Heat Stop	35	28	32	0,64	0,87
Green	50	40	65	0,60	0,84
Blue	40	28	42	0,55	0,86

End laps (to be avoided) should be treated as follows should the need arise:

Butyl strip sealant for sealing in polycarbonates on metal roofing sheeting all in accordance with manufacturers specifications- guarantee to for roof to be issued.

WATERPROOFING OF CONCRETE FLAT ROOF'S

APPLY a DUAL layer system.

Products:

- Abedex V-SR 4mm underlay- an Elastoplastomeric compound reinforced in reinforced polyester
- and Abedex Unigum MS as a cap sheet- an Elastoplastomeric compound reinforced in reinforced polyester

LAYER 1: Abedex V-SR 4mm underlay

The substrate to be clean, dry and free of any dust, grease, oils or loose debris. The substrate to be of a smooth and even condition being free of protrusions and void

Ensure that the substrate complies with the required roof falls/ slopes towards the specified full-bore outlets

Apply bituprime primer on substrates to receive membrane- allow to dry

The 4mm thick membrane to be fully bonded by heat fusion to the primed substrate- the upper membrane must be laid with staggered side and end laps. Side laps to be a minimum of 75mm and end laps to be a minimum 100mm

Installation to be done using a round nosed trowel and gas torch to ensure adequate bonding of the laps.

LAYER 2: Abedex unigum

A mineral slate incorporates a slate granule imbedded into the upper surface of the membrane

To be used as a 'capping' sheet in a 2 layer system

The underside of the membrane received a sacrificial polyethylene film, Flamina and then the membrane is embossed. The embossing allows for the rapid burn off of the polyethylene film when the membrane is being installed by torch application.

The substrate to be clean, dry and free of any dust, grease, oils or loose debris. The substrate to be of a smooth and even condition being free of protrusions and void

Apply bituprime primer on substrates to receive membrane- allow to dry

The membrane to be fully bonded by heat fusion to the primed substrate- this upper/ top membrane must be laid with staggered side and end laps. Side laps to be a minimum of 75mm and end laps to be a minimum 100mm

Installation to be done using a round nosed trowel and gas torch to ensure adequate bonding of the laps.

On any technical aspects, the technical sales team to be contacted directly by the Contractor

UKUZA

SAINT-GOBAIN

abedex® V-SR

ELASTOPLASTOMERIC COMPOUND (BPP) REINFORCED IN REINFORCED POLYESTER

DESCRIPTION

The **abedex® V-SR membrane** are available in 3 mm and 4 mm thicknesses on a 10 m roll. The membrane manufacturing processes uses polymer modified bitumen reinforced with a composite reinforcement. This ensures a good quality membrane that has high elongation and stability across the defined temperature range.

The upper face of **abedex® V-SR membrane** are coated with a sand finish which allows the membrane to be unrolled easily during the application and provides a prepared surface for the application of a aluminium reflective coating to the upper membrane side.

The underside of the membrane is lined with Flamina, a sacrificial polyethylene film. It is embossed with small squares which assist in the rapid burn-off of the Flamina as an indicator that the correct melting point for adhesion to the primed substrate ensuring a reliable installation.

USES

- The **abedex® V-SR membrane** can be used as a single layer system or as part of a multi-layer in both the refurbishment and new building works market
- On all sloping surfaces: flat, vertical and curved
- Walls, foundations and concrete roofs

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

- The substrate is to be clean, dry and free of any dust, grease, oils or loose debris. The substrate is to be of a smooth and even condition being free of protrusions or voids.
- Coves or fillets are to be installed at all internal angles.
- Screed to falls of 1:80.

PRIMING

- Apply **bituprime** primer on substrates to receive membrane
- Allow to flash off or dry

APPLICATION/BONDING

- Avoid rough handling, especially at low temperatures below 5 °C Work must be stopped at temperatures below -2 °C
- Our standard application of the membrane requires that the product be fully bonded by heat fusion to the primed substrate by heat fusion
- If a two layer membrane system is to be fitted the upper membrane must be laid with staggered side and end laps
- We recommend side laps to be minimum of 75 mm and end laps to be a minimum of 100 mm
- A round nosed trowel and gas torch to be used when installing the membrane ensure adequate bonding of the laps
- Protection coating or overlay to be determined by a professional with **a.b.e.®** technical assistance

PROPERTIES

Type	Reinforce-ment	Surface finish	Thickness - weight / m²	m²/ Pallet	Weight
3 mm	Polyester	Sand	3 mm	250	40 kg
4 mm	Polyester	Sand	4 mm	200	50 kg

DIMENSIONAL SPECIFICATIONS

Length	10 m - 1% (UNI EN 1848-1)	Tol. ≥
Width	1 m - 1% (UNI EN 1848-1)	Tol. ≥
Thickness	UNI EN 1849-1	Tol. 0.4 mm
Weight per m²	UNI EN 1849-1	Tol. 10%

TECHNICAL CHARACTERISTICS

Characteristic	Tolerance	
Watertightness (UNI EN 1928)	≥	60 kPa
Dimensional stability L (UNI EN 1107-1)	≥	-0.3%
Flow resistance at high temperature (EN 1110)	≥	120 °C
Flow resistance at high temperature after aging (UNI EN 1296 / UNI EN 1110)	-10 °C	110 °C
Tensile strength L/T (UNI EN 12311-1)	-20 %	400/250 N/50 mm
Elongation at break L/T (UNI EN 12311-1)	-15 v.a.	35 %/35 %
Water vapour transmission (UNI EN 1931)	-	μ20000
UV Ageing	-	Passes the test (4 mm)
Watertightness after exposure to chemical agents artificial ageing (UNI EN 1296) (UNI EN 1928 / UNI EN 1847)	-	NPD

MODEL SPECIFICATION

Please contact the **a.b.e.®** technical sales team for a specific project specification (0860 223 773).

IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **a.b.e.®** endeavours to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot accept any liability for application – because **a.b.e.®** has no direct or continuous control over where and how **a.b.e.®** products are applied.

FURTHER INFORMATION

- Where other products are to be used in conjunction with this material, the relevant technical data sheets should be consulted to determine total requirements.
- **a.b.e.®** has a wealth of technical and practical experience built up over the years in the company's pursuit of excellence in building and construction technology.
- Please consult our website for our latest datasheets.

UKUZA

SAINT-GOBAIN

abedex® unigum

Mineral Slate

ELASTOPLASTOMERIC COMPOUND (BPP) REINFORCED IN REINFORCED POLYESTER

The membrane is manufactured from modified bitumen reinforced with a non-woven polyester fabric.

DESCRIPTION

abedex® unigum Mineral Slate incorporates a slate granule imbedded into the upper surface of the membrane producing an aesthetically pleasing, low maintenance waterproofing material. It should be noted that this membrane should not be used as a primary waterproofing membrane, but rather as a capping sheet in a two layer system.

The underside of the membrane receives a sacrificial polyethylene film, Flamina and then the membrane is embossed. The embossing allows for rapid burn off of the polyethylene film when the membrane is being installed by torch application.

USES

- Normally used in any exposed waterproofing system.
- The mineral surface should be used as the upper membrane in a two layer system acting as a capping or weather sheet

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

- The substrate is to be clean, dry and free of any dust, grease, oils or loose debris. The substrate is to be of a smooth and even condition being free of protrusions or voids
- Coves or fillets are to be installed at all internal angles
- Screed to falls of 1:80

PRIMING

- Apply **bituprime** on substrates to receive membrane
- Allow to flash off or dry

APPLICATION/BONDING

- Avoid rough handling, especially at low temperatures below 5 °C Work must be stopped at temperatures below -2 °C
- Our standard application of the membrane requires that the product be fully bonded by heat fusion to the primed substrate by heat fusion
- If a two layer membrane system is to be fitted the upper membrane must be laid with staggered side and end laps
- We recommend side laps to be minimum of 75 mm and end laps to be a minimum of 100 mm
- A round nosed trowel and gas torch to be used when installing the membrane ensure adequate bonding of the laps

PROPERTIES

Type	Reinforcement	Surface finish	Thickness - weight /m²	m²/ Pallet	Weight
4.5 kg	Spunbound Polyester	Film	4 mm	200	50 kg

DIMENSIONAL SPECIFICATIONS

Length	10 m - 1% (UNI EN 1848-1)	Tol. ≥
Width	1 m - 1% (UNI EN 1848-1)	Tol. ≥
Thickness	UNI EN 1849-1	Tol. 0.2 mm
Weight per m2	UNI EN 1849-1	Tol. 10%

TECHNICAL CHARACTERISTICS

Characteristic	Tolerance	
Waterproof rating (UNI EN 1928)	≥	60 kPa
Dimensional stability L (UNI EN 1107-1)	≥	-0.3 %
Stability of shape when hot (EN 1110)	≥	120 °C
Stability of shape when hot after aging (UNI EN 1296 / UNI EN 1110)	-10 °C	110 °C
Tensile strength L/T (UNI EN 12311-1)	-20 %	400/250 N/50 mm
Elongation at break L/T (UNI EN 12311-1)	-15 s.a.	35 %/35 %
Vapour permeability (UNI EN 1931)	-	µ20000
UV Aguing (UNI EN 1297)	-	-
Adhesion of the granules (UNI EN 12039)	≥	30%
Water penetration resistance (UNI EN 1928)	-	Class W1
Intended use	-	Finishing layer

MODEL SPECIFICATION

Please contact the **a.b.e.®** technical sales team for a specific project speci-fication (0860 223 773).

IMPORTANT NOTE

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FURTHER INFORMATION

- Where other products are to be used in conjunction with this material, the relevant technical data sheets should be consulted to determine total requirements.
- **a.b.e.®** has a wealth of technical and practical experience built up over the years in the company's pursuit of excellence in building and construction technology.
- Please consult our website for our latest datasheets.

FIX 001: EXTERNAL BENCHES (x 4)

- H: 480mm
- L: 1200mm
- W: 420mm

External Positions:

- Internal Courtyard x4

FIX 002: EXTERNAL BINS (x8)

SA BINS- concrete bins

Ribbed Round Litter Bin (grey colour finish):

- H: 740mm
- Outer Diameter: 500mm
- Internal Diameter: 380mm
- Weight: 188kg

With Round Fibreglass Bin Canopy suitable for ribbed round litter bin 500mm dia x 740mm high (black)

External Positions:

- Public Courtyard x2
- Administration Parking: x2
- Internal courtyards: x4

FIX 003: CONCRETE LITTER BINS (x 4)

The unit: Is 750mm in height and is 316mm in diameter with a weight of 95 kg- Colour: GREY

The lid: Powder coated- Colour: SILVER with21 holes on top and is fitted to the top of the unit with a locking system.

The contents: The unit contains an environmentally friendly chemical, which breaks down the cigarette butts and lets off a fragrance.

Signage: with an A4 insert added to it to encourage environmentally friendly policies.

- Positions:
  Administration Parking: x2
  Entrance walkway/ public seating: x2

FLAGPOLES (x 2)

DESCRIPTION:
Flagpoles to be hot dipped galvanized steel & white powder coated fixed flag in two parts, one lower part 6 long formed of 101mm diameter x 2mm wall thickness, upper part 3m long formed of 76mm diameter x 2mm wall thickness- all connected together, erected vertically with hinge base and galvanized foundation cage, 3 x flags complete with all fittings, including all ropes, pulleys, cleats, etc all in accordance with manufacturer's instructions
Design of 2 x flags to be confirmed

Bird deflector/ reflectors (Quantity: x 16) DESCRIPTION:

Optical light reflecting mediums help to deter and repel **birds** from perching on **roofs**, railings and more on your buildings- EAGLE EYE or similar
Mounted onto roof ridges – positions to be determined on sit

UKUZA CONSULTING (PTY) LTD

ANNEXURES TO FINISHING SCHEDULE

Refer to FL27 above: Waterproofing to screed BEFORE laying of floor tiles

SAINT-GOBAIN

duraflex®

CEMENTITIOUS FLEXIBLE WATERPROOFING SLURRY

DESCRIPTION

duraflex® is a ready to use flexible slurry based on a special synthetic resin dispersion and a blend of selected cements mixed with carefully graded aggregate.

USES

duraflex® is used for:

- Protection and repair of balconies, terraces and haunching concrete of roads and bridges
- Waterproofing of new and old buildings (internal and external)
- Waterproofing of tanks, containers and water reservoirs

ADVANTAGES

- Excellent waterproof barrier
- Effective on negative or positive side
- High bond strength
- Excellent freeze/thaw resistance
- Excellent resistance to chloride ion penetration
- Brush, trowel, or spray applied
- Reliable application
- Self-curing
- Low in place cost
- Non-toxic
- Good abrasion resistance
- Approved for use in potable water systems

BONDING/PRIMING

No priming required.

SURFACE PREPARATION

All surfaces that are to receive the coating must be free from oil, grease, wax, dirt or any other form of foreign matter that might affect adhesion. Typically concrete may require grit blasting. Spalled surfaces or those containing large blowholes and other such defects should be repaired using **duraflex®** or an **a.b.e.®** approved repair mortar. Care must be taken when choosing the repair mortar to ensure that it has all necessary approvals for contact with potable water. If the surface contains small blow holes, typically less than 1 mm wide, the coating can be applied directly onto the substrate without the need for a treatment. Cracks which are less than 0.3 mm in width can be over coated as long as the crack is not likely to open up to greater than 0.3 mm (this is greater than the maximum permissible crack widths recommended in BS 8007:1987, the British Standard Code of Practice for the design of concrete structures for retaining aqueous liquids). Cracks that are greater than 0.3 mm in width should be chased-out to 4 mm in width and approximately 15 mm in depth. This should be filled with **duraflex®** (applied using less liquid providing a thicker consistency). When the material in the crack has hardened the coating should be applied over the crack.

TYPICAL PHYSICAL PROPERTIES	
Nominal coverage	2 kg/m²/mm thick/coat (2 coats required)
Pot life	@ 10 °C – 2 hours @ 20 °C – 1 hour @ 30 °C – 0.5 hours
Hardening time	Resistant to mechanical stress: 3 days Full cure: 7 days
Resistance to water pressure	Attained after 7 days cure Positive pressure: 10 bar Negative pressure: 4 bar
Equivalent concrete cover	180 mm

MIXING

It is essential to use a mechanical mixer, such as a slow speed electric drill fitted with a suitable paddle. Our technical department will be pleased to supply details of blade design.