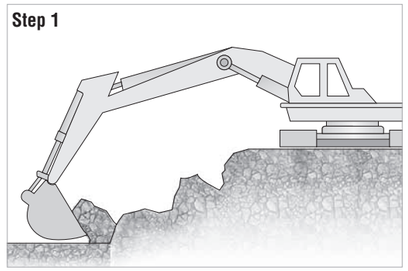
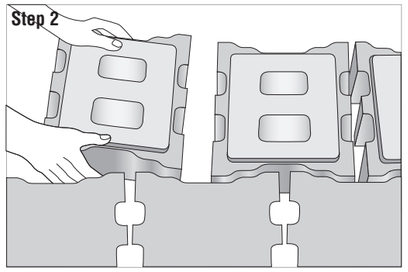
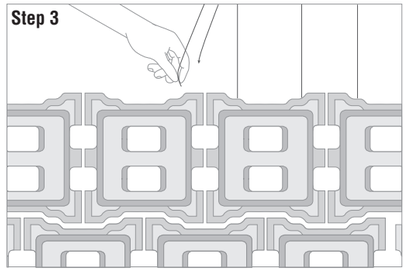
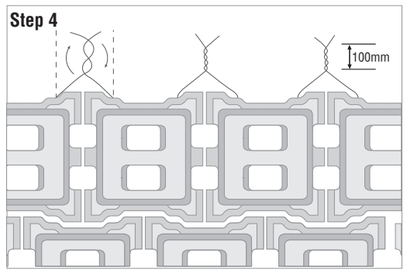
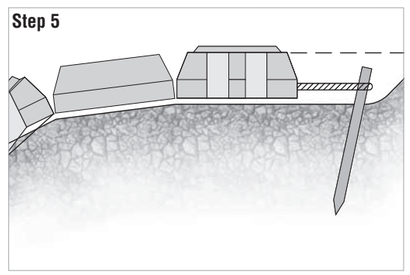
The 6 easy steps to site assembled Armorflex...

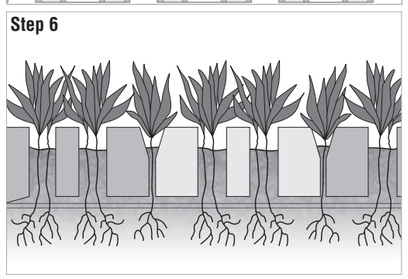












Step 1: ***Site preparation, excavation, trimming & compaction***
Prior to laying Armorflex, the base material must be profiled to line and level and should be compacted to a firm and even finish. Obstructions, such as roots and projecting stones should be removed as the quality of the preparation will be reflected in the finished surface. The angle of repose of the in situ material must not be exceeded. Maximum desired slope is 1:1,5

Step 2: ***Handling & placing by manual labour***
Armorflex loose block should be placed in a stretcher bond pattern to achieve the mechanical interlock. At areas such as culvert inlets and outlets, the blocks should be placed to allow for access to the cable ducts.

Step 3: ***Wiring up in situ***
The wire is easily pushed through the cable ducts in the blocks and secured as detailed in Step 4. The choice of wire will depend on the application. A 3,1 mm diameter galvanized fencing wire or a 5 mm diameter polyester rope can be used. In certain situations wiring up may not be necessary. Generally the wire will be threaded perpendicular to the flow.

Step 4: ***A final twist to the wire***
Galvanized wire can be twisted across the block joint for a length of minimum. 100mm or a suitable knot used on the polyester cable.

Step 5: ***Anchorage***
Armorflex placed on steep slopes may slide on the geotextile until the system has settled. Temporary or permanent anchorage can be achieved with steel or wooden pegs through the top cable loops.

Step 6: ***Finishing***
Armorflex subject to wave attack should be blinded with a sand/gravel mixture. Above normal waterline, the voids should be soiled and seeded to develop natural vegetation.

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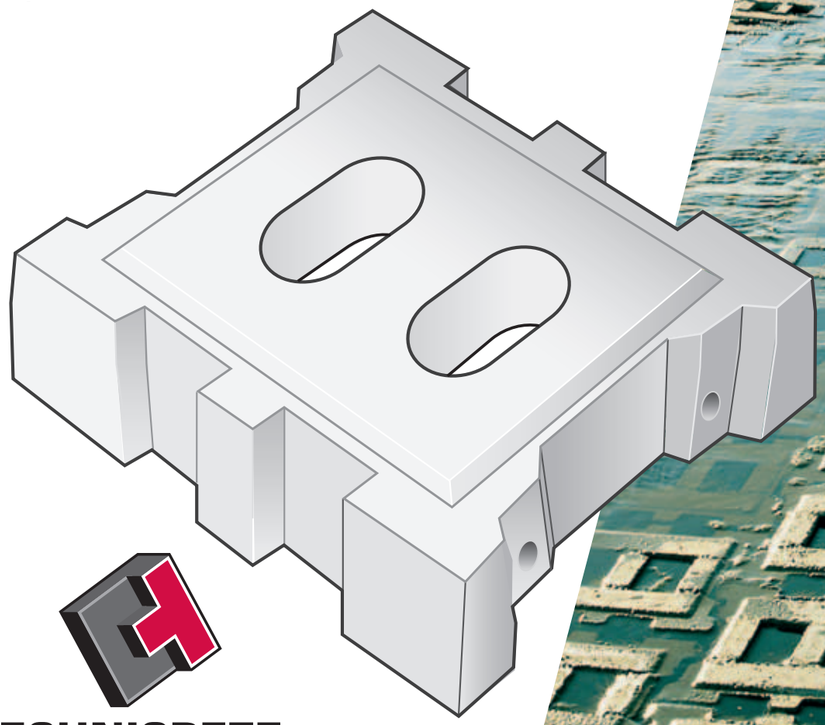
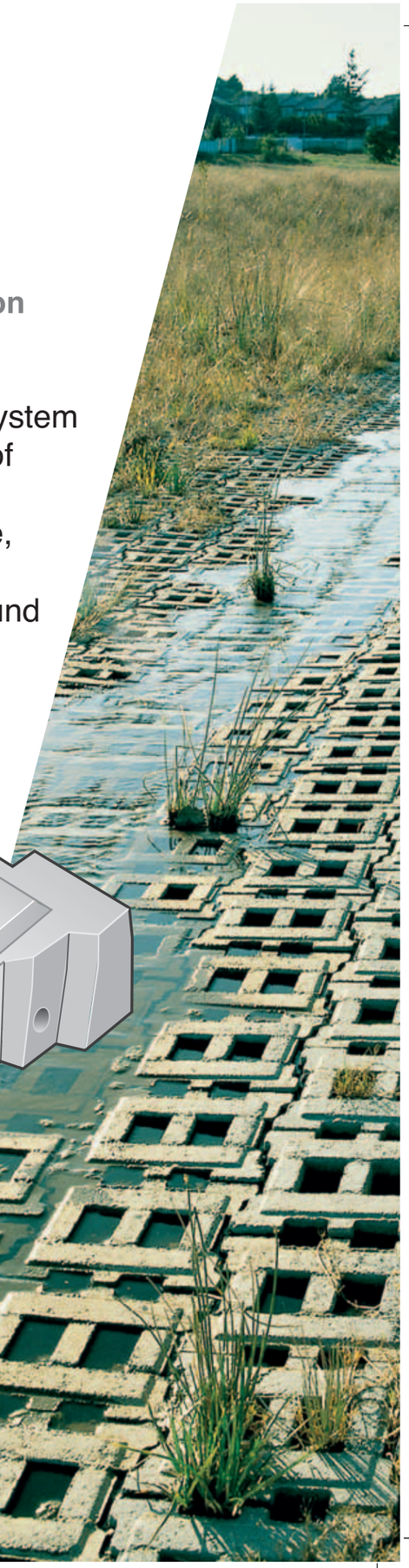
Armorflex®

The engineered solution for simple erosion protection

Technicrete Armorflex® erosion control system provides an alternative for a wide variety of erosion control and drainage projects. **Technicrete Armorflex®** system is flexible, conforming to ground contours, settling without cracking, and requires limited ground preparation.





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CONCRETE ROOF TILES • **EROSION PROTECTION BLOCKS** • KERBS • MASONRY • PAVING • PREBAGGED PRODUCTS • RETAINING WALLS • STOPE SUPPORT SYSTEMS

Technicrete Armorflex®

When your project calls for protection that can withstand severe applications and climatic conditions, when it must be installed quickly with no in situ concrete, and even when it must be placed under water, ARMORFLEX is the engineered solution. Technicrete can provide design assistance and on site consultation if required.

Typical cross-section: the performance of the system relies on maintaining intimate contact between the blocks, geotextile and the base material.

The engineered solution

Civil Engineers throughout the world are continually faced with the problem of controlling erosion of coastal shorelines and inland waterways. Coastal areas frequently experience land loss and property damage resulting from the dynamic forces associated with wave attack, while inland waterways experience heavy currents which erode channel banks and beds, consequently resulting in unfavourable environmental conditions.

The ARMORFLEX Erosion Control System provides an engineered alternative for a wide variety of erosion control and drainage projects. The matrix of open cells and projections retain soils, relieve hydrostatic pressure and provide the perfect environment for establishing natural vegetation.

The ARMORFLEX system is flexible, conforming to ground contours, settling without fracture, and requires only limited ground preparation.

ARMORFLEX can be supplied palletized in loose block form for manual installation or in preformed mats for mechanical installation. The result is a stable protection designed to withstand high water velocities and wave attack with a finish that is environmentally acceptable.

Applications

Erosion control

ARMORFLEX provides defence against erosion in fast flowing streams and rivers. ARMORFLEX is particularly suitable for protection of rivers, estuaries, lakes, reservoirs and other areas subject to wave action. ARMORFLEX, with the stability of its specially designed blocks, provides flexible protection unaffected by subsidence and hidden by nature.

Roadways

ARMORFLEX provides an ideal heavy duty riding surface for temporary and permanent access roads, parking areas and stormwater drift crossings.

Drainage

ARMORFLEX provides an excellent lining for drainage channels. Bed and channel banks are stabilized against erosion caused by high velocities and the tendency of water to change the planned course of a channel. ARMORFLEX aprons at pipe inlets and outlets eliminate pipe undercutting that may lead to severe problems such as surrounding bank failure and siltation downstream. Other drainage applications include: ditch linings, spillways, headwalls, sediment basins and traps, pipe inlet protection, and protection of berms.

Characteristics

Stability

ARMORFLEX provides protection that acts as a single articulating mat to withstand the destructive forces of water. Where necessary, alternative weights and sizes of mats can be produced for special applications.

Flexibility

ARMORFLEX blocks are of a sophisticated design which allows the mat to remain flexible. The blocks are specially tapered to allow for this flexibility, maintaining minimum stress on the blocks. This facility enables ARMORFLEX to conform to contours even if settlement occurs after installation.

Filtration

ARMORFLEX mats are placed on a geotextile. The geotextile replaces graded filter materials for a more simplified installation. The permeability of the filter and blocks relieves hydrostatic pressure while its capacity for soil retention prevents leaching of materials through the installation.

Vegetation

ARMORFLEX, with stone filling in the cells, will greatly reduce the development of vegetal growth. When the cells are filled with topsoil, ARMORFLEX provides the perfect environment for the establishment of vegetation. Roots will penetrate the geotextile providing a permanent anchor for the installation.

Flow resistance

The ARMORFLEX matrix of open cells and projections create a surface with an engineered roughness. This surface roughness causes a loss of energy due to the formation of eddies within each open cell, thus reducing the potential for erosion. The Manning Roughness Coefficient, "n", of ARMORFLEX has a value ranging from 0.025 - 0.035, depending on the material filling the open cells and vegetal cover. ARMORFLEX 140 offers protection against flow velocities up to 3.5 m/s and ARMORFLEX 180 up to 5.5 m/s. Each project should however be carefully assessed to determine the correct specification and product size.

		Dimensions length x breadth x height (mm)	Normal plan size of block (mm)	No. of blocks (p/m^2)	Weight of block (kg ave)	Unit weight (kg/m^2)	Open area (%)	Vol. material to fill joints & voids (m^3/m^2)	Mat sizes (m)	Cable Factory assembled	In situ assemled	Vertical bending radius (m)
Armorflex 180		340 x 294 x 115	309 x 294	11	16.4	180	18	0.022	Standard 6.2 x 2.4 (20 x 8 blocks)	galvanised steel wire/synthetic rope	galvanised fencing wire/synthetic rope	0.5 min
Armorflex 205		340 x 294 x 115	309 x 294	11	19.2	205	8	0.008	Standard 6.2 x 2.4 (20 x 8 blocks)	galvanised steel wire/synthetic rope	galvanised fencing wire/synthetic rope	0.5 min
Armorflex 140		340 x 400 x 95	309 x 400	8	17.5	140	18	0.017	Standard 6.2 x 2.4 (20 x 6 blocks)	galvanised steel wire/synthetic rope	galvanised fencing wire/synthetic rope	0.5 min
Armorflex 165		340 x 400 x 95	309 x 400	8	20.6	165	8	0.009	Standard 6.2 x 2.4 (20 x 6 blocks)	galvanised steel wire/synthetic rope	galvanised fencing wire/synthetic rope	0.5 min

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Specifications: *Armorflex blocks consist of machine compressed concrete blocks which are either solid or with vertical holes and two horizontal cable ducts, depending on the application. The block shape is such that they interlock with each other transversely across the mat. The blocks have a partial taper to the sides which allow the system to articulate freely without disjointing. The partial taper encourages the ingress of fine granular particles into the joint between blocks.*