

### Step 5: DRAINAGE, BACKFILL & GEOGRID FOR REINFORCED WALLS

Place a Maccaferri Megafluo 150 collector drain to the rear of the reinforced infill soil with an Enkadrain behind the reinforced soil extended to 500mm from the surface. Place and compact infill soil as specified in construction note 6 behind the first block layer. Clean any debris from the top of the blocks to ensure the next blocks and the geogrid layer sits perfectly. Roll the geogrid perpendicular to the wall, pull tight and cut to the required length. Ensure that the geogrid sits within 10mm of the front of the block, so that the purpose made connecting lugs can interlock. Butt join the geogrid along the length of the wall.



### Step 6: LAYING ADDITIONAL COURSES

Lay the next course and subsequent courses to a string line following the same procedure, as outlined in steps 4 or 5 above, e.g. clean fill to the top of the blocks, backfill in maximum 150mm layers, ensuring backfill is compacted to 95% and lay geogrids as required to every 2<sup>nd</sup> block layer.



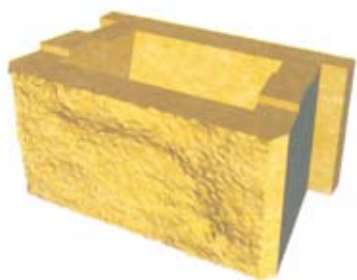
### Step 7: LAYING CAPPING UNITS & FINISHING

Once backfilling and cleaning is completed, fix the purpose made Tasman Capping blocks with adhesive. For domestic situations, a waterproof construction adhesive is recommended. For high use areas, a 2-part epoxy is preferred. Care should be taken where possible to divert water away from the retained soil and wall face. Install cut off drains above the wall where surface water could exist and connect to site stormwater system.



# Tasman<sup>TM</sup>

## Retaining Wall System



**Tasman Wall Block**  
390mm x 225mm x 200mm  
13 per m<sup>2</sup>  
75 per pallet



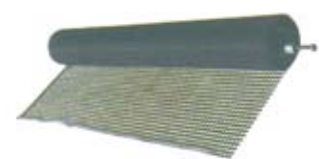
**Tasman 200mm Capping Block**  
200mm x 225mm x 60mm  
5 per lineal metre  
300 per pallet



**Tasman Half Corner Block**  
145mm x 235mm x 200mm  
(Available in left or right)  
Right hand corner shown



**Tasman Full Corner Block**  
145mm x 340mm x 200mm  
(Available in left or right)  
Right hand corner shown



**Tencate Miragrid GX<sup>®</sup>**  
Roll size 2.50m W x 200m L  
Types available  
40/40; 80/30; 100/30



Charcoal



Autumn Leaves



Natural



Boulder

Colours displayed in this brochure are to be used as a guide only. Colours are as close as printing process will allow. Displays in stores may vary to actual colour due to batch variation. Obtain samples from viblock for current batch colour. Care should be taken to order sufficient product to complete job at one time to avoid batch variation. Surplus blocks not returnable. No claims after 7 days or once products have been incorporated in construction.

**CHECK WITH YOUR LOCAL COUNCIL TO ENSURE ALL LOCAL BUILDING CODES ARE COMPLIED WITH**

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# Tasman<sup>TM</sup>

From...

# viblock

## Retaining Wall System



### Curves

For Convex curved walls simply knock the back fin off the block with a hammer.

**MINIMUM RADIUS :1300mm**

This is the min. radius of the top course. Adjust lower courses allowing for 10mm step back.



### Corners

Corners are built by adhesively fixing the purpose made corner blocks to alternate courses.

Allowances should be made for a 10mm step back per course. Lugs must be removed from the Tasman Blocks to ensure that the corner block fits evenly.

\* Separate data sheets available.



### Steps

Steps can be easily built using a combination of Tasman Blocks and capping units.

The step risers are built with Tasman blocks.

The capping units are then adhered to the top of the blocks to form the treads.



**NOTE: For terraced walls, fences above walls and any specialised applications, contact your supplier.**

# Tasman<sup>®</sup>

## Retaining Wall System

The **Tasman** retaining wall system incorporates purpose made corner and capping units to provide classical reconstructed sandstone retaining walls. The unique design of the **Tasman** wall system allows increased flexibility over competing products. The **Tasman** walls can be built almost vertical. Each block has only a 10mm setback, which allows all available space to be utilised to the maximum. Curved or straight walls can be erected and it is easy to build 90-degree corners with the purpose made corner block. A capping unit is adhered to the top course of the blocks to finish off the wall.

**Tasman** blocks are suitable for retaining walls up to 6 metres high. The blocks are easily dry-stacked and their patented design locks into the block above to form an attractive structural retaining wall. For high walls, **Tencate Miragrid GX<sup>®</sup> geogrids are locked in every 2nd course of blocks** to create a reinforced soil retaining wall structure. (See *design tables*). To comply with most council requirements, please seek specific engineering advice for all walls over 1.5 metres high or for low surcharged walls carrying car traffic, etc.

## INSTALLATION GUIDE

### Step 1: BASE PREPARATION

Dig out trench to the width and depth (key depth + hardfill base) as specified in the design tables. Place and well compact clean well graded hardfill.



### Step 2: SAND BED

Spread 20mm of sand bedding over the compacted hardfill base. This should be in a straight line and checked with a level. If the wall is stepped, start at the lowest point.



### Step 3: LAYING 1ST COURSE

The first block course is now bedded into the sand layer. The use of a level and string is recommended to ensure that the first course is laid correctly. Compact hardfill along the front of the blocks to stabilise.



### Step 4: DRAINAGE & BACKFILL FOR UNREINFORCED WALLS

Lay filter fabric behind the first course of blocks and up the cut soil to be retained. Place a perforated draincoil, with a 1 in 80 fall behind the first course of blocks over the filter fabric. Connect draincoil to site stormwater system. Backfill behind the blocks approximately 200-300mm using 10-20mm clean, free-draining material (e.g. washed gravel). Ensure that each block is also well filled with free-draining material. If required place fill behind the drainage layer and filter fabric with your available backfill material (see design tables) in a maximum of 150mm layers. Compaction of 95% must be achieved (use only hand operated plate compactors close to wall). **Do not use soft or wet clay to backfill.** Be careful not to mechanically compact too close to the wall.



## D E S I G N T A B L E S

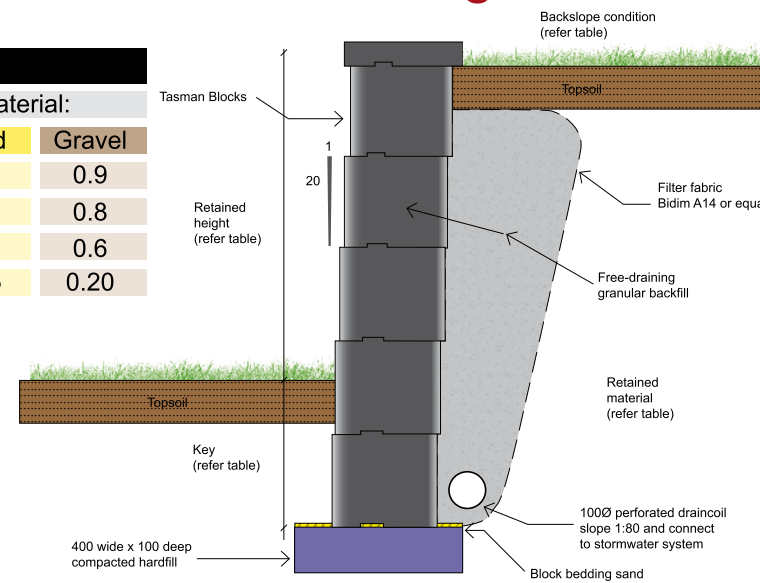
### Maximum wall heights for Tasman block gravity retaining walls

**Tasman** retaining walls that comply with the maximum wall height shown in table 1 can be built as gravity walls (*REFER CONSTRUCTION NOTES*). These walls use the weight and interlocking mechanisms of the **Tasman** blocks to retain an embankment.

**Tasman** retaining walls that exceed the height of table 1 will require Tencate Miragrid GX<sup>®</sup> Geogrid soil reinforcement (see table 2). **Tasman** walls, together with Tencate Miragrid GX<sup>®</sup> Geogrids locked into the patented interlocking blocks, provide a reinforced soil mass for walls up to 6 metres high.

**TABLE 1: Tasman Block UNREINFORCED Retaining Walls**

Backslope Conditions:	Maximum Retained Height (m):			
	Dominant retained material:			
Level	Clay	Silt	Sand	Gravel
Slope 1V:3H	0.6	0.7	0.8	0.9
Domestic Vehicles	0.5	0.6	0.7	0.8
Key (m):	0.4	0.5	0.5	0.6
	0.35	0.30	0.25	0.20



### Construction Notes

All walls over 1.5m require Building Consent from your local authority, please seek specific engineering advice.

- Any surcharged wall including low height walls carrying vehicle loads, backslopes or other loads may require Building Consent, check with your local authority and seek specific engineering advice. All walls over 1.0m high with access above shall require a safety fence to comply with the New Zealand Building Code.
- Seek advice on retained material soil classification if unsure.
  - Clay: Particles passing 0.002mm sieve, Assumed angle of shearing resistance  $\phi = 20^\circ +$
  - Silt: Particles passing 0.06mm sieve, Particles not passing 0.002mm sieve, Assumed angle of shearing resistance  $\phi = 25^\circ +$
  - Sand: Particles passing 2.0 mm sieve, Particles not passing 0.06mm sieve, Assumed angle of shearing resistance  $\phi = 30^\circ +$
  - Gravel: Particles passing 100 mm sieve, Particles not passing 2.0mm sieve, Assumed angle of shearing resistance  $\phi = 35^\circ +$
- Domestic vehicle loads are taken as 5kPa (500kg/m<sup>2</sup>) suitable for residential driveways only. For any heavy vehicle loads seek specific engineering advice.
- All footings to be formed on good ground assumed capable of carrying 100kPa allowable bearing working stress. Seek advice if soft clay or silt exist.
- Free draining granular backfill to unreinforced walls to be washed stones in the range of 10 to 20mm diameter.
- Infill soil to reinforced walls to be well graded granular material with not more than 15% passing 0.06mm sieve and no particles larger than 100mm diameter. Compact in 150mm layers to achieve 95% relative compaction. Use caution compacting close to wall face.
- Reinforced walls shall use Tencate Miragrid GX<sup>®</sup> 40-40 Geogrid unless noted otherwise.
- All products, including blocks, geogrid and other specified products to be installed in accordance with manufacturers specifications.
- If in doubt, please seek advice.

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**TABLE 2: Tasman Block REINFORCED Retaining Walls**

Dominant Retained Material:	Retained Height (m):	Tencate Miragrid GX 40-40 Geogrid Lengths (m):		
		Backslope Condition:		
		Level	Slope 1V : 3H	Domestic Vehicles
Clay	1.0	1.9	2.6	2.6
	1.5	2.6	3.7	3.4
	2.0	3.4	4.8	4.2
	2.5	4.1	5.9	4.9
Silt	1.0	1.3	1.6	1.8
	1.5	1.8	2.2	2.3
	2.0	2.3	2.8	2.8
	2.5	2.8	3.4	3.3
Sand	1.0	1.0	1.1	1.3
	1.5	1.3	1.5	1.7
	2.0	1.6	1.9	2.0
	2.5	2.0	2.3	2.3
Gravel	1.0	0.8	0.9	1.0
	1.5	1.2	1.2	1.2
	2.0	1.6	1.6	1.6
	2.5	2.0	2.0	2.0

