

Concrete Cloth Splash Protection Mats

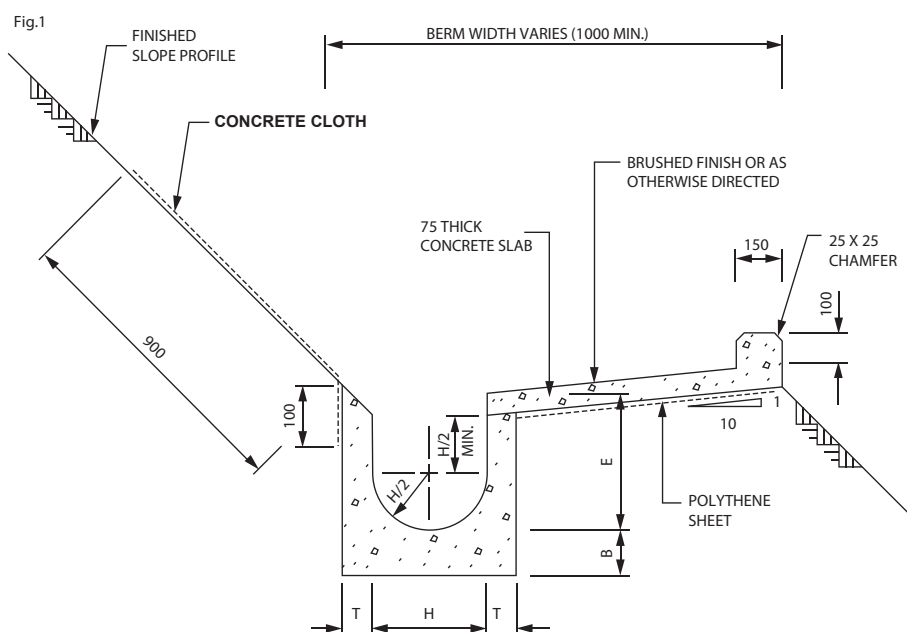
Splash protection mats are commonly used to prevent soil erosion along slope drains. The erosion is caused by water splash when drains are running swiftly or by overflow when the drainage capacity exceeds the design return period. Standard slope drainage drawings typically specify a non biodegradable erosion control mat to be laid onto the slope, adjacent to the slope drainage channel.

5mm Concrete Cloth (CC4) is ideally suited for this purpose. Not only will CC4 provide the required protection, it will also prevent soil particle loss from behind the hardened geotextile and is totally protected from UV damage, hillside fires (due to its ceramic properties) and is non-biodegradable. Long term solutions on slopes require a long term product. CC4 provides long term durability properties in excess of 25 years.

The Concrete Cloth can be laid with a 100mm buried lip, fixing the material in position and leaving a width of 900mm on the slope as indicated on the sketch below. Additionally, CC4 can be fixed with short nails prior to hydration to provide further stability and a long lasting durable solution.

U-Channels Constructed on Berm

Fig. 1 Typical detailing of drainage channel on hillsides requiring a non-biodegradable erosion control mat. CC4 is ideally suited to soil protection on slopes.



NOMINAL SIZE H	T	B	REINFORCEMENT
300	80	100	A252 MESH PLACED CENTRALLY AND T=100 WHEN E>650
375 - 600	100	150	
675 - 900	125	175	A252 MESH PLACED CENTRALLY

Notes

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE TO BE GRADE 20/20.
3. CONCRETE SURF ACE FINISH SHALL BE CLASS U2, F2 OR BRUSH FINISH AS DIRECTED.
4. SPACING OF EXPANSION JOINT IN CHANNELS, BERM SLABS AND APRONS TO BE 10 METRES MAXIMUM.
5. JOINTS FOR CHANNELS, BERM SLABS, APRONS AND WALLS ETC. TO BE ON THE SAME ALIGNMENT.
6. FOR DIMENSIONS T, H, & B SEE TABLE BELOW.
7. CC TO BE FIXED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

Installation



- 1) CC4 or CC8 is supplied in lengths of 200m or 110m respectively and can be easily handled and positioned using site plant. Alternatively short lengths of CC can be provided in man portable lengths for manual application.
- 2) CC can be sealed with 100mm overlaps between adjacent CC on the length of the slope drain.
- 3) CC is cut to length depending on the length of the slope drain.
- 4) CC is additionally fixed using short nails hammered into the soil. Other fixing methods such as drilled bolts can also be used if rock is present.
- 5) CC is hydrated once fixed into position, either by spraying or immersing in water.

Notes

Concrete Cloth is predominantly a protective covering which is strong and resistant to the usual problems of UV degradation, hillside fires and infiltration due to lack of water resistance. The fibre reinforcement in CC provides some tensile strength properties as detailed in the CC data sheet. CC can be laid during inclement weather to provide 24 hour protection in areas requiring emergency treatment.