MACCAFERRI

TECHNICAL DATA SHEET

Rev: 11c, Date: 21.03.19

BIOMAC®

COIR EROSION PROTECTION BLANKETS

BioMac® blankets are quilted biodegradable coir mats used to provide immediate erosion protection from the effects of rainfall impact and surface runoff. BioMac© blankets are designed to support the establishment of vegetation on exposed slopes. The coir fibres within the blanket are evenly distributed and of a density sufficient to provide soil erosion protection whilst also encouraging new plant growth. The blanket also reduces the evaporation of moisture within the soils assisting plant growth.

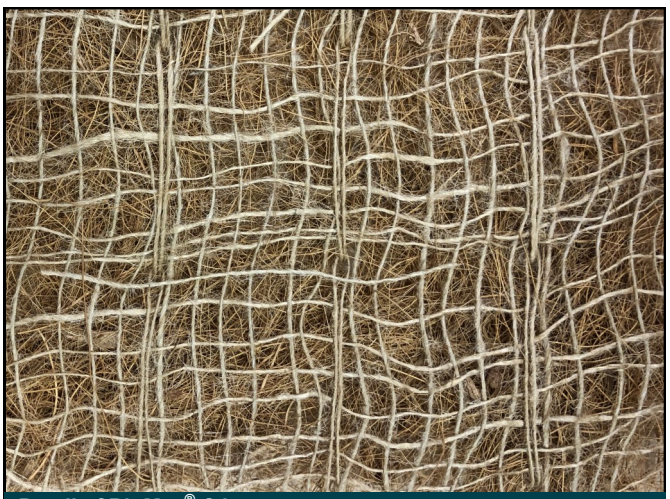
Main applications of BioMac®

- Erosion control and soil stabilization
- Road and railways embankments
- Downstream facings of earth dams
- Facings for green reinforced soil systems
- Golf courses, parks and sports fields
- Landfills
- Mulch mats
- Noise bunds

SPECIFICATIONS		
PROPERTIES	**BioMac® C**	**BioMac® CJ**
Description:	BioMac blankets are quilted biodegradable coir mats providing full ground cover and immediate erosion protection. The coir fibres are evenly distributed and of a density sufficient to provide soil erosion protection whilst also encouraging new plant growth.	
Composition:	All coir matrix encapsulated between lightweight photosensitive polymer grid scrim nets.	All coir matrix encapsulated between biodegradable organic woven jute nets.
Mat Type:	Coir fibres are stitch-quilted between upper and lower lightweight polymer grid scrims (8g/m^2 in 8mm x 10mm mesh).	Coir fibres are stitch quilted between upper and lower biodegradable organic woven jute net.
Strength:	3.7 kN/m	4.7 kN/m (Machine Direction) 3.4 kN/m (Cross Direction)
Cover	95% porosity and 85% Ground Cover Factor.	
Weight:	Overall weight including nets = 350g/m^2 (Nominal)	Overall weight including nets = 450g/m^2 (Nominal)
Roll Size:	2.4m x 50m	
Normal functional life:	1 year to 2 years depending on climate, location and UV exposure	1 year to 3 years depending on climate, location and exposure

Pre-seeded BioMac® blankets are available to order. Please contact us for availability and delivery times.

Detail of BioMac® C



Detail of BioMac® CJ

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Installation of BioMac®

The soil surfaces on which BioMac® is to be laid shall be raked and even, such that the BioMac® lays continuously on the surface without significant voids beneath the matting.
BioMac® blanket shall be unrolled and pinned down to the substrate using steel staples or wooden stakes placed at fixing centres dependent on the soil slope or the surface length to protect (Figs. 5, 6, 7).
Adjacent soil blankets are to be overlapped by at least 10 cm.
Non-seeded blankets shall be seeded after installation with suitable seed mixtures appropriate to the prevailing conditions on the site and properly fertilized/watered.
If pre-seeded blankets are used, for better results re-seed after 3 or 4 weeks after installation.
Irrigation of BioMac® blankets is important to enable the establishment of vegetation on the soil surface.

Figure 4

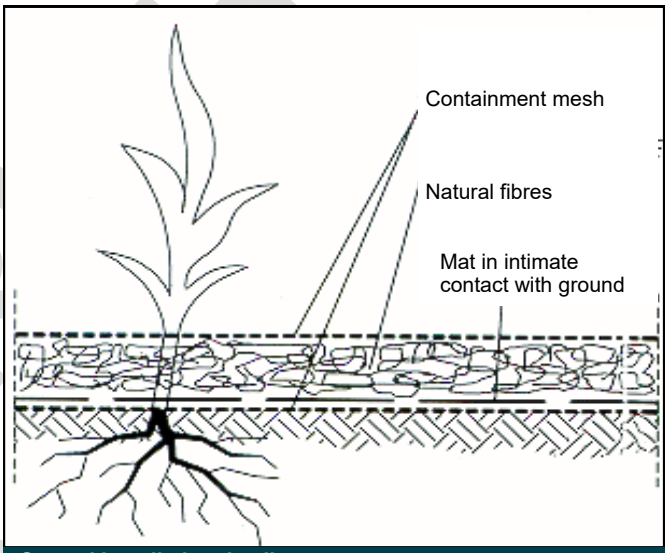
Packaging and storage

Each roll will be protected with a clear and impermeable polypropylene wrapping which should not undergo deterioration or damage during handling, transportation and storage. BioMac® rolls should be kept dry and stored in a roofed holding area or covered with an impermeable medium. This is especially important for pre-seeded mats, which will begin to vegetate if exposed to moisture. All BioMac® units shall be kept in dry conditions in specific holding areas provided with a fire prevention system conforming to the appropriate national standard requirements.

Successful vegetation tips

The success of vegetation on a slope depends on multiple factors including;

- Suitable depth of quality top-soil
- Sufficient moisture
- Appropriate seeds, suited to the conditions on the specific site
- Aspect of the slope
- Type of erosion control blanket used



Ground installation detail

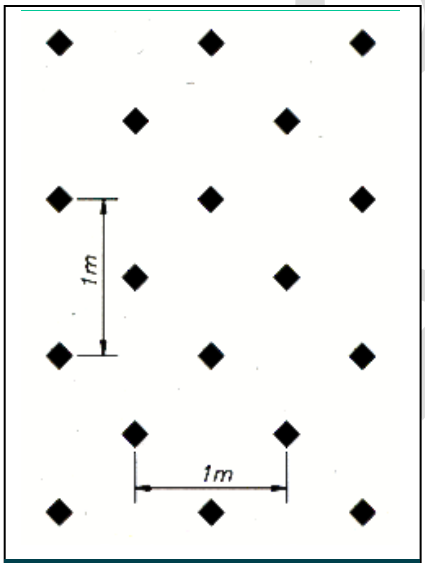


Fig. 5: Steep slope (>1:2)

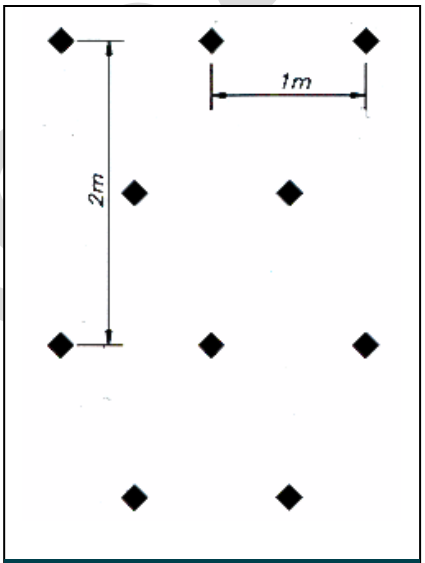


Fig. 6: Intermediate slope (≈1:2)

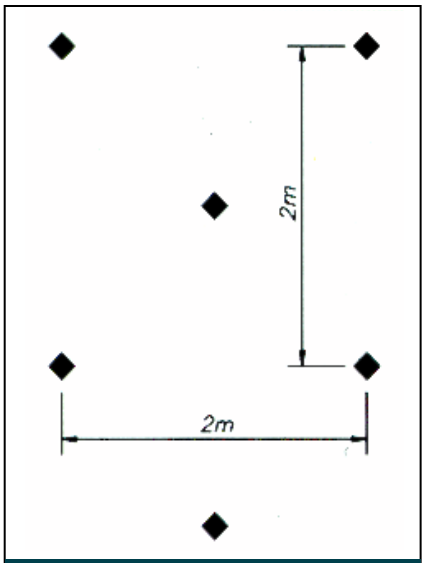


Fig. 7: Moderate slope (< 1:3)

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