

ROAD CONSTRUCTION

MacTexTM non woven range of geotextiles improve the subgrade on highways, urban and rural roads. Where roads are constructed over insitu soils of low bearing capacity, MacTexTM provides separation to prevent the intermixing of natural soil with the aggregates. It also acts as a filter, assisting dissipation of pore water pressure and enhancing drainage beneath the road formation.

MacTexTM is used as a separator to prevent contamination of road base resulting in longer pavement life.

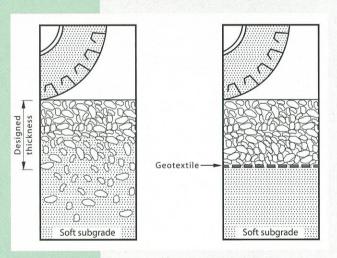
MacTexTM provides effective soil improvement for earthworks over water sensitive soils such as peat, silty clay, mud and marine sediments. It separates the fill material from insitu soil and introduces additional reinforcement.

Used under access tracks, storage areas, reclamation and embankments over swampy ground, $MacTex^{TM}$ saves on construction time and aggregate / filling costs.

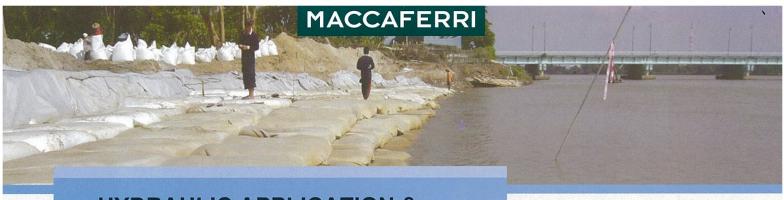
MacTexTM MacPave, Paving fabric reduces significantly the stresses in the new overlay and considerably increases the life of the new road surfaces.

MacPave geotextiles also function to retard reflective cracking. This works as a SAMI-Stress Absorbing Membrane Interlayer, by unrolling MacPave on top of the cracked surface, the ductility and the shear resistance of the entire flexible pavement system is greatly increased. The stress normally transferred from the cracks in the old pavement into the overlay is absorbed in the fabric interlayer. The ability of the wearing course to resist tensile stress is also increased.









HYDRAULIC APPLICATION & COASTAL PROTECTION

In river and coastal works, armoured revetments and defensive walls are frequently required to protect banks against erosion from currents and wave action. MacTexTM geotextiles placed beneath these structures prevents hydraulic leaching of the fine material behind. The high permeability of MacTexTM relieves hydrostatic pressures by allowing free drainage of river, tidal and ground water.

For hydraulic applications, Maccaferri strongly recommends the use of MacTex[™] behind all Gabion, Terramesh and Reno mattress structures.

MacTex[™] can be readily placed in position, even for underwater applications

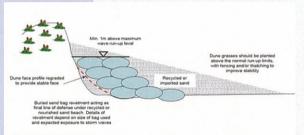
The high strength and puncture resistance of MacTexTM resists damage when it is used. beneath armor rock (rip-rap) or stone pitching,

Geotextile tubes or MacTubeTM's are designed for use along the coastal shorelines, stream banks and wet land perimeter for protection against storms, currents and other erosive forces. When used in conjunction with other Maccaferri products such as Gabions, Reno mattress, Ballast filled mattress, they represent complete systems for erosion management and environmental restoration. Mac TubeTM's are also used as river diversion structures and for flood control.

When used along shore lines, our high performance MacTubeTM's are filled with dredged material or sand and installed to shield against the wave action. When covered these create a resilient core for vegetated dunes to protect upland property and infrastructure from erosion and storm damage. They can also be placed perpendicular to the shoreline as jetties and groynes to redirect or trap sediments.

These are ideal for dredged material management. They greatly reduce dewatering time and disposal costs, and provide opportunities for the beneficial reuse of the dredged material. MacTubeTM's provide for large volumes of liquid waste to be removed quickly, allowing plant operators to re-establish environmental controls in their clarifiers.







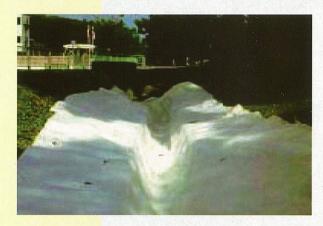




SUB SURFACE DRAINS

MacTex™ prevents fine soil particles from entering and impeding the drainage system. It stops leaching of the surrounding soil while allowing free passage of water.

Wrapped aggregate drains provide maximum drainage surface area in contact with soil. Perforated drainage pipes sleeved in Mac Tex[™] are directly protected against clogging.





N RAILWAY WORKS

MacTex™ alleviates ballast contamination from fine soil particles and assists in track drainage. This preserves ballast integrity and track alignment, thus reducing maintenance requirements.

In some cases, for additional strength, Mac-Grid™ can also be used as a geo-composite.

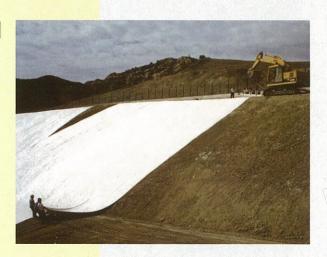




LANDFILL CONSTRUCTION

Drainage & leachate collection; when placed in intimate contact with the drainage media MacTex medium weight geotextiles separates and filter the soil & wastes allowing water and leachate to pass through.

Geomembrane protection; our heavyweight Nonwoven fabrics increase the geomembrane resistance to puncture, impact and abrasion. Gas venting; our heavyweight Nonwoven geotextile do more than protecting the geomembrane. They may also be used for collection of lateral transmission of gases, that might otherwise built-up beneath the waste containment facility cover system.





MacTexTM silt fence fabrics offer a unique combination of UV resistance, strength and hydraulic properties, making them ideal for use in sedimentation control applications. Once fastened to wooden or metal posts and properly trenched. MacTexTM geotextiles help to contain overland flow and filter suspended particles from water, preventing environment damage to areas adjacent to the construction sites. As sediment accumulates, the fabric's high tensile strength, UV resistance and low maintenance ensure continued performance until vegetation becomes fully established.



Maccaferri offers the following range of MacTex[™] products

Product Name	Description	Range
MacTex - MXC	Nonwoven Polypropylene Geotextile	110gsm - 700gsm
MacTex - WR	Woven Multifilament Polyester Geotextile	Up to 1000kN/m
MacTex - WP	Woven Multifilament Polypropylene Geotextile	Up to 200kN/m
MacTex - W1	Woven Polypropylene Tape Geotextile	Up to 50kN/m

Officine Maccaferri Group Profile

Founded in 1879, Officine Maccaferri soon became a technical reference in the design and development of solutions for erosion control and retaining structures.

Since then, through technological innovation, geographical expansion and focussed diversification, Maccaferri now offers solutions at a global level for a wide range of civil and environmental engineering applications.

Consultancy and Partnership

Maccaferri's motto is 'Engineering a Better Solution'; We do not merely supply products, but work in partnership with our clients, offering technical expertise to deliver versatile, cost effective and environmentally sound solutions. We aim to build mutually beneficial relationships with clients through the quality of our service and solutions.

Organisational Structure

Officine Maccaferri is at the heart of the Maccaferri Industrial Group. Its continued growth is based upon long-held values of innovation, integrity, excellent service and respect for the environment.

Maccaferri's vision is to become a leading international provider of advanced solutions to the civil engineering and construction market. Implementing a strategy of vertical integration, Maccaferri researches, manufactures, designs, supplies and constructs solutions within its target markets.

The capability of the business continues to expand due to a strategic plan to open new markets and grow existing ones; Maccaferri now offers advanced engineered solutions from beach nourishment to reinforced soil structures and from rockfall mitigation to tunnelling systems.

With over 2000 employees, 26 manufacturing facilities and local operations in 100 countries around the world, Maccaferri can truly claim to have a global presence with local focus.

Maccaferri: Engineering a Better Solution

















any reproduction, including photocopy, film and microfilm, is forbidden. All rights <mark>reserved worldwide</mark>



Maccaferri Industrial Group

MACCAFERRI

Maccaferri Asia Regional HQ : + (60-3) 7957 8330

+ (60-3) 7957 9080 e-mail: regional hg@maccaferri-asia.com Maccaferri (Malaysia) Sdn. Bhd.

: + (60-3) 7955 7800 + (60-3) 7955 7801 e-mail: mm@maccaferri-asia.com Maccaferri Indonesia, PT : + (62-21) 750 6555

+ (62-21) 750 6553 e-mail: mi@maccaferri.co.id Sun-B Maccaferri Co., Ltd. : + (822) 568 8990

+ (822) 568 7230 e-mail: gabion@sunb-maccaferri.co.kr Maccaferri (Philippines), Inc.

: + (63-2) 813 0211

Siam Gabions Co., Ltd. : + (66-2) 642 3307

+ (63-2) 813 0211 Ext.1 (66-2) 642 3309 e-mail: sales@maccaferri.com.ph e-mail: info@siamgabions.com