MACCAFERRI

CASE HISTORY

Rev: 1, Issue Data 31.03.2020

LOW PERMEABILITY LINING AT KUNINGAN DAM

KUNINGAN, JAWA BARAT, INDONESIA

Lining Systems - Base

Problem

A section of the access road at Kuningan Dam Project (Kuningan - Jawa Barat) needed to be protected from water intrusion. The access road which is located at Sesar Area has location very close to the water dam. Because of the lack of low permeable soil on the site, a low permeability geosynthetic was proposed as an alternative solution.
Geosynthetic Clay Liner called MacLine GCL W10 by Maccaferri was selected considering its easy installation method and endurance to be installed directly on the existing coarse-grained soil.

Solution

A 2,500 m2 area of MacLine GCL W10 has been installed on an existing slope at the side of the access road. The construction was then continued with an embankment construction to support the existing slope.
MacLine GCL W10 consists of a layer of sodium bentonite encapsulated between non-woven geotextile and woven geotextile, needle punched together for maximum performances under a wide variety of site conditions. A low permeability lining system then created by MacLine GCL W10 until 1x10-11 m/sec under the pressure of 100 kPa with a nominal thickness of 5.5 mm.
Available in rolls, MacLine GCL W10 has an easy installation procedure and it needs an only overlapping system for the connections without complex system compared to other material.
Maccaferri Macline GCL W10 shall grant some advantages such as:
Easy and Quick Installation ; Suitable for any kind of superficial contour thanks to its flexibility ; Self-recovery attribute from puncture ; Cost-effective.

Client: PT. Wijaya Karya (Persero) Tbk.
Designer / Consultant: PT. Ika Adya Perkasa
Contractor: PT. Wijaya Karya Tbk.
Products used (Qty.)
- MacLine GCL 2,500 sqm

Date of construction: 09/2018 - 10/2018

Macline GCL W roll

Condition of existing soil

Installed Macline GCL W10 on the existing slope

PT. Maccaferri Indonesia
Aminta Plaza 2nd Floor, Suite 204
Jln. TB Simatupang Kav.10 Jakarta 12310
Ph: +62-21 750 6555
Fax: +62-21 750 6553
E-mail: info.id@maccaferri.com