



CAPABILITY SHEET

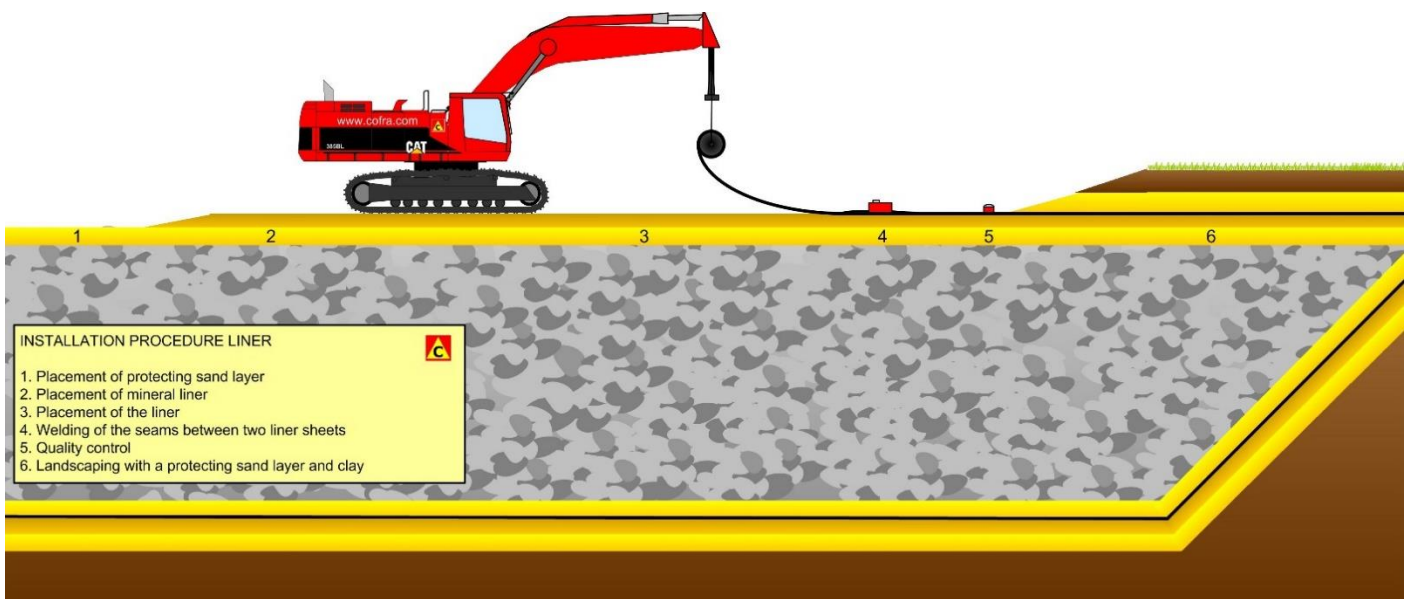
Liner



General

PE (polyethylene) liners are commonly used for environmental and civil engineering applications. At waste disposal sites HDPE (High Density polyethylene) membranes are installed to separate the deposited material from groundwater and open air. In civil applications they are used to seal ashes from waste incineration plants and contaminated soils when these materials are applied as part of the construction.

Cofra has specialized in the installation of PE geomembranes and geotextiles and can be seen as one of the largest installers of these materials in the Netherlands in terms of 2.0 mm thickness HDPE geomembranes. We can install these membranes both horizontally and on gradients. The material consists of HDPE with a proportion of carbon black, anti-oxidants and stabilizers and is resistant to a large number of chemicals, including acids, salts, alkalis, alcohol, oils and hydrocarbons.





Our history with HDPE liner goes back a long time. In the Netherlands we were the first contracting company to be certified for installation in accordance with the KIWA BRL K537. For more than 30 years our installation teams perform any task according to strict quality and safety standards.

Quality control

Monitoring and process control is essential when using HDPE liner for separation purposes. Cofra's way of working complies with all regulations for HDPE quality control. Our in-house laboratory is equipped to perform all tests required on the liners installed.

All welding methods require a high level of expertise, both with regard to implementation and in terms of

checking to guarantee optimal weld quality. Long liner lengths are connected by means of hot welding (two weld strips, creating a channel for testing purposes). Detailed connections are done by means of extrusion welding.

Starting the project, as well as part of daily startup, both the competence of the technicians and the function and set-up of the welding machines are checked by doing test welds on site which are checked in a mobile laboratory. Project quality control comprises general inspection as well as checking connections. In the case of channel welds, they are tested by means of air pressure. Extrusion welds are tested by means of vacuum (box) or electricity (copper wire inserted).

Apart from Cofra's own inspection, this can be verified by an independent accredited inspection agency

Characteristics

We see the following specific liner related characteristics:

- High quality standard
- Material resistant to a large number of chemicals
- Over 30 years of experience in liner and geotextile installation on both landfill sites and civil projects
- Large installation capacity
- In house laboratory for quality control
- Mobile unit as workshop and laboratory on site
- In house geotechnical department to assist in slope stability design

