



TYPICAL SWALE LINER DETAIL

NTS

Minimal recommended values for the slope gradient up to 1:2.5 are stated in table below:

Length of Slope	Anchor Trench sizes in 'm'		
	A	B	C
< 10m	0.5m	0.5m	0.5m
10m - 30m	0.8m	0.6m	0.6m
> 30m	1m	0.8m	0.8m

See table below indicating friction angles of the JUNIFOL geomembranes with various materials

Material	Textured HPDE	Smooth HPDE
Sandy Clay	35	18
Fine Graded Clay	32	16
Non Woven Geotextile (Netex)	33	11
JUTA Mat	33	11
Sand	35	20
Concrete	42	22

The above stated values are for guidance only. It is recommended to undertake site specific shear tests with relevant geosynthetic material and natural components.

CLIENT
JUTA UK LTD

PROJECT
SUDS (Sustainable Urban Drainage Systems)



NOTES

- All JUTA geotextile and geomembranes should be installed by specialists who are suitably experienced and familiar with installation processes for materials.
- It is the designers and specialist installing contractors responsibility to ensure that overall SUDS strategies is suitable for site specific application.
- Detail shown above is generic application so should be used as a guide not a specific installation detail.
- Dimensions are not to be scaled from this drawing. All written measurements are to be checked on site by the contractor.
- All rights described in chapter IV of the copyright, design and patents act 1988 have been generally asserted.

JUTA NETEX 300TT - Is a geotextile permeable fabric which allows water to pass through different substrates where required while retaining soils particles filtering down to the lower levels with higher graded aggregate. All overlaps of JUTA Netex 300TT should be a minimum 300mm and taped using

JUTA GP®H 2mm - Are impermeable geomembranes sheets used to wrap SUDS containing water. These products can be welded or taped, see guidance below.

Jointing and Sealing using welding (where design service life is required to exceed 60 years):

Before welding work is carried out trials must be completed to determine the operating window for the welding equipment and materials. It is noted that ambient air temperature, power supply and the condition of welding equipment can affect the working window. **JUTA UK** recommends that any heat welding is carried out by a Construction Skills NVQ Level 2 qualified installer (or equivalent). The membranes should be overlapped by at least 300mm and care should be taken to ensure a seal between the joint. The printed 300mm overlap line should be used as a guide to ensure suitable jointing. A minimum welded overlap joint of 50mm wide should be achieved - it should be noted that the suitability of the welded joint is defined by the joint integrity, as tested in accordance with C735 (most commonly air lance - ASTM D4437-08:2013), if a welded joint passes integrity testing, it would be deemed acceptable.

Jointing and Sealing using Tapes (where design service life does not exceed 25 years):

A 300mm overlap print line is provided on products to assist with overlapping, jointing and sealing. For taped joints, JUTA GP Tape (50mm wide) can be utilised. The JUTA GP Tape is double sided for ease of use. To joint using tapes, ensure the first panel of Barrier is laid, and the surface is clean, dry, and free from dust. Begin by peeling one side of the protective coating from the tape, applying the tape along the outside edge of the 300mm guide line; such that the tape is between 300mm and 350mm from the Barrier roll edge. Unroll the second layer of Barrier ensuring a 350mm overlap, slowly removing the upper layer of protective film from the Tape, and pressing firmly on the taped joint with a silicone roller to remove trapped air. (Note - taped joints have the highest failure rate when tested to ASTM D4437-08:2013 - therefore it is imperative that pressure sealing with silicone roller is implemented).

DRAWING TITLE
JUTA GPH - Typical Swale Liner Detail

DRAWING NUMBER
JUTA.UDG.011

DRAWN BY PD	CHECKED BY PF	SCALE Not to Scale	DATE March 2020
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