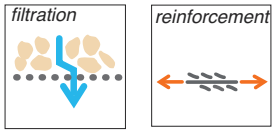
bontec® NW optim

multi-purpose, high-performance, thermally bonded needle-punched nonwoven geotextile



bontec® NW optim is used in all structures
- for separation of soil layers
- for filtration

Advantages

- **bontec® NW optim** benefits from a technology optimized for maximum efficiency in a separator and bearing capacity reinforcement role, i.e. for most geotextile applications (see diagrams below),
- due to its thermally bonded, needle-punched production process, its pore structure is stable for controlled filtration,
- **bontec® NW optim**, with 40% to 50% elongation at break, is reassuring,
- **bontec® NW optim**, with 40% to 50% elongation at break, provides 30% to 50% extra reinforcement between soil layers than a standard product (see graph),
- **bontec® NW optim**, due to its high coefficient of friction, is more effective for providing separation and reinforcement between soil layers, thanks to the geotextile "grip",
- **bontec NW** is compact and can be handled easily, and does not absorb water,
- broad range from 80 to 800 g/m².

Detailed description

100% virgin polypropylene needle-punched nonwoven geotextile.

The fibres are thermally bonded after needle punching so as to improve their grip with the soil, increase its load-bearing capacity and stabilize its pore structure for controlled filtration.
The elongation at break ranges between 40% and 50%.

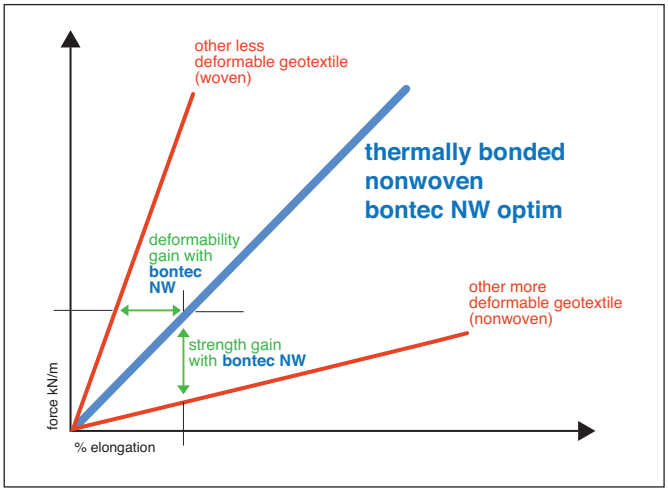
Installation technique

- plan a layout drawing to limit cutting out,
- prepare a flat, graded, compacted base, with no projecting elements,
- unroll the product on the ground with a shaft passed through the reel, or by hand, or suspend it from a lifting beam,
- the strips' overlap depends on the supporting soil: on a stable, graded soil 30 cm, on a soft soil 60 cm to 1 m,
- the strips can be stitched together or "welded" with a hot air gun or a hot gas gun,
- cut out the product using a cutter or scissors, wearing gloves.

Packaging

bontec® NW optim is available in rolls 5.25 m wide x 100 m or 2.62 m x 100 m.
Other sizes on request.

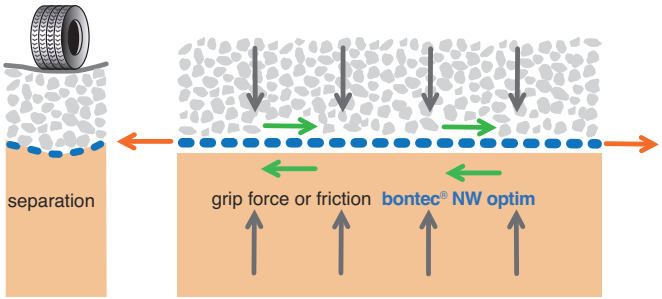
Advantage due to the toughness of bontec® NW optim: efficiency gain



Our solutions on engineering structures

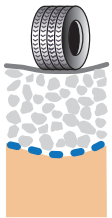
bontec® NW optim

● advantage due to the grip of bontec NW in the soil



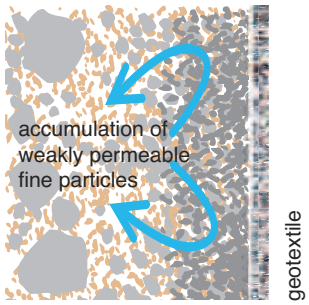
not sufficiently deformable:
the geotextile is torn and allows clay to rise: contamination

too deformable:
the geotextile does not withstand the load sufficiently and there is deeper rutting.

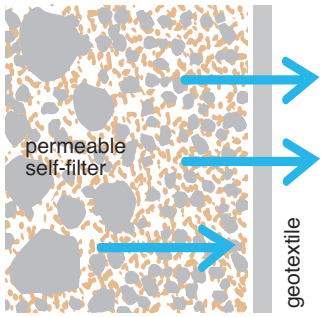


ideally deformable:
The geotextile plays its role as both a separator and a reinforcement.
Contamination is prevented and rutting is limited.
The superior grip of **bontec® NW** optim which increases friction improves the result.

● soil filtration



geotextile too tight



appropriate geotextile

Our specifications

▲ **reservoir** *p.99-102*
▲ **coverings, storage centre** *p.107*
▲ **waste storage** *p.104*
▲ **embankment protection** *p.85*
▲ **embankment stabilization** *p.95*
▲ **reinforced earth foundation** *p.93*
▲ **roads, railways, roadbeds** *p.87*
▲ **sports ground** *p.103*
▲ **building** *p.111*

technical characteristics of the range

	kN/m	%	$O_{F(\mu m)}$	CBR(kN)	g/m²
NW6	6	40	140	0.89	80
NW8	8	40	130	1.24	100
NW12	12	45	110	1.78	145
NW16	16	45	85	2.40	200
NW20	20	50	70	3.1	235
NW25	25	50	65	3.6	300

bontec	strength	strength	gain as%
	in the soil of **bontec® NW optim** for 10% strain	in the soil of a highly deformable standard product for 10% strain	with **bontec® NW optim** compared with a highly deformable standard
NW6	1.5 kN/m	0.75 kN/m	100%
NW8	2 kN/m	1 kN/m	100%
NW12	3 kN/m	1.5 kN/m	100%
NW16	3.5 kN/m	2 kN/m	75%
NW20	4 kN/m	2.5 kN/m	60%
NW25	5 kN/m	3.1 kN/m	60%