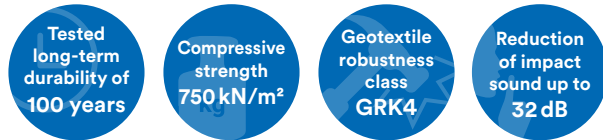


Technical data sheet

DELTA®-TERRAXX ULTRA



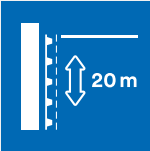
High-performance protection and drainage system with very high water flow capacity for horizontal and vertical applications. With integrated self-adhesive edge.



Characteristics	Methods	Values		
Description				
The geocomposite consisting of a pressure-resistant dimpled structure and a filter-stable geotextile serves as a drainage layer and effectively protects pressure-stable substrates against mechanical impacts.				
Characteristics of the dimpled sheet				
Material	–	Virgin PE-HD (silver) with laminated geotextile		
Thickness	EN ISO 9863-1	approx. 0.9 mm		
Height of dimples	–	approx. 10 mm		
Flat edge / integrated self-adhesive edge for overlappings	–	Yes / yes		
Number of dimples per m ²	–	2,500 pieces/m ²		
Contact area dimples/surface	–	8,000 cm ² /m ²		
Air gap between the dimples	–	7.9 l/m ²		
Characteristics of the geotextile				
Material	–	Virgin Polypropylen (light grey), thermal bonded		
Surface weight	EN ISO 9864	approx. 260 g/m ²		
Resistance to static puncture (CBR-test)	EN ISO 12236	approx. 2.9 kN		
Class of robustness	–	GRK4		
Characteristic opening size	EN ISO 12956	approx. 75 µm		
Water permeability	EN ISO 11058	approx. 0.012 m/s		
Dynamic perforation resistance (cone drop test)	EN ISO 13433	approx. 22 mm		
Tensile strength MD/CMD	EN ISO 10319	approx. 20.0 kN/m		
Resistance to weathering	EN 12224	To be covered within two weeks after installation		
Characteristics of the composite				
Surface weight	EN ISO 9864	approx. 1.160 g/m ²		
Compressive strength (short-term compression behaviour)	EN ISO 25619-2	approx. 750 kN/m ²		
Strain at compressive loading 1,008 h (compressive creep)	EN ISO 25619-1	< 4 % (at 200 kPa)		
Endurance and fatigue test	ANTEA	400,000 cycles at 350 kPa load		
Maximum installation depth	–	20 m		
Tensile strength MD/CMD	EN ISO 10319	approx. 30.9 kN/m / 30.6 kN/m		
Elongation at maximum tensile strength MD/CMD	EN ISO 10319	approx. 65 % / 42 %		
Durability	EN ISO 13438	Durable for 100 years in natural soil with 4 ≤ pH ≤ 9 and soil temperature ≤ 25 °C		
Water flow capacity in the plane				
Compressive stress	Hydraulic gradient:			
20 kPa	EN ISO 12958	i = 0.02	i = 0.10	i = 1.00
50 kPa		0.35 l/(s · m)	0.85 l/(s · m)	3.00 l/(s · m)
200 kPa		0.30 l/(s · m)	0.75 l/(s · m)	2.72 l/(s · m)
		0.26 l/(s · m)	0.65 l/(s · m)	2.43 l/(s · m)

The content of this data sheet describes the current state of knowledge at the time of publication and make no claim to be complete. The information listed does not release from self-dependent behaviour. With publication of this sheet all previous versions are not valid any longer. Errors and typing errors reserved.



Characteristics	Methods	Values
Miscellaneous		
Reduction of impact sound	Hochschule RheinMain	up to 32 dB
Temperature resistance	–	-30 to +80 °C
Dimension	–	10.50 m × 2.40 m
Weight of one roll	–	29.2 kg
Packaging unit	–	15 rolls/pallet
CE-conformity	–	EN 13252
Conformity rules and standards	–	DIN 18531, DIN 18533, DIN 4095
Certificates	–	Asqual (Geotextile)
Accessories		
<ul style="list-style-type: none"> • DELTA®-FIXING SCREW: Special screw to fix DELTA®-Protection and drainage sheets (e.g. DELTA®-TERRAXX) on perimeter insulation made of XPS/EPS with a thickness of minimum 60 mm. Each box contains a TORX BIT TX40 for easy screwing. • DELTA®-DIMPLED SHEET PROFILE: End profile for the application to cover the upper edge of DELTA®-Dimpled/drainage sheets. • DELTA®-TERRAXX-PROFILE: End profile with stamped rabbets for the application to cover the upper edge of DELTA®-Dimpled/drainage sheets and perimeter insulation up to 100 mm. • DELTA®-ADHESIVE NAIL: Special fastener for DELTA®-Dimpled and drainage sheets with self-adhesive, quadratic baseplate for safe and non-penetrative adhesion on the waterproofing. • DELTA®-GEOTEXX FS 100: Separation and filter non-woven for protection of the drainage and water retention function. 		
Applications		Functions
	Applicable under drivable areas with intensive traffic (e.g. large parking sites).	For fast drainage within the structure. Prevention of frost damages and efflorescences at the flagging. Optimal protection for the underlying waterproofing.
	Applicable under drivable areas with lorries (e.g. access for fire brigade).	
	For vertical application in civil and underground engineering with installation depth up to 20 m.	Protection, filter and drainage layer to prevent backwater.