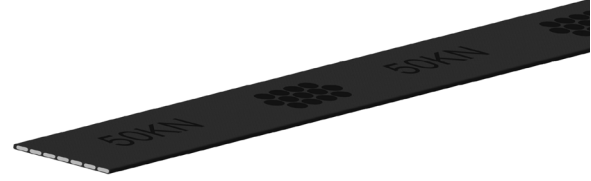
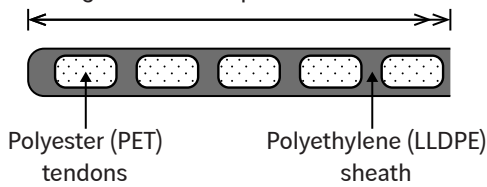


GeoStrap®-R

GeoStrap®-R 5 and **GeoStrap®-R 7** reinforcing strips feature high-tenacity polyester yarns encased in 50mm and 70mm polyethylene sheaths respectively. The polyester yarns meet stringent durability standards, performing well in pH 3 to 9 environments. The polyethylene sheath provides robust protection against installation damage, ensuring longevity. GeoStrap®-R strips are strong, lightweight, and flexible, offering easy installation and adaptability to diverse geotechnical conditions. This makes them a cost-effective and efficient solution for soil reinforcement in applications like retaining walls and slopes.



Technical Properties

Properties	Units	GeoStrap®-R 5								
Mechanical Properties										
Characteristic Strength ⁱ	kN	25	30	40	50	60	70	80	90	100
Elongation at break	%	12±4	12±4	12±4	12±4	12±4	12±4	12±4	12±4	12±4
Partial Reduction Factor – Creep ⁱⁱⁱ	@20° C	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Partial Reduction Factor – Installation Damage	D ₅₀ 0.9 mm	0.95	0.95	0.95	0.99	0.99	1.00	1.00	1.00	1.00
	D ₅₀ 5.0 mm	0.97	0.97	0.97	0.99	0.99	1.00	1.00	1.00	1.00
	D ₅₀ 21.0 mm	0.90	0.90	0.90	0.99	0.99	1.00	1.00	1.00	1.00
Partial Reduction Factor -Environmental Effects ^{iv}	-	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Physical Properties										
Reinforcement polymer	-	HT-PET	HT-PET	HT-PET	HT-PET	HT-PET	HT-PET	HT-PET	HT-PET	HT-PET
Coating polymer	-	LLDPE	LLDPE	LLDPE	LLDPE	LLDPE	LLDPE	LLDPE	LLDPE	LLDPE
Width and tolerance	mm	49.5±1	49.5±1	49.5±1	49.5±1	49.5±1	49.5±1	49.5±1	49.5±1	49.5±1
Coil length ⁱⁱ	m	100	100	100	100	100	100	100	100	100

Properties	Units	GeoStrap®-R 7								
Mechanical Properties										
Characteristic Strength ⁱ	kN	30	50	75	100	110	120	135	150	175
Elongation at break	%	12±4	12±4	12±4	12±4	12±4	12±4	12±4	12±4	12±4
Partial Reduction Factor – Creep ⁱⁱⁱ	@20° C	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Partial Reduction Factor – Installation Damage	D ₅₀ 0.9 mm	0.98	0.99	0.99	0.99	0.99	0.99	1.00	1.00	1.00
	D ₅₀ 5.0 mm	0.98	0.97	0.97	0.97	0.97	0.97	0.99	0.99	0.99
	D ₅₀ 21.0 mm	0.96	0.98	0.98	1.00	1.00	1.00	0.99	0.99	0.99
Partial Reduction Factor –Environmental Effects ^{iv}	-	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Physical Properties										
Reinforcement polymer	-	HT-PET	HT-PET	HT-PET	HT-PET	HT-PET	HT-PET	HT-PET	HT-PET	HT-PET
Coating polymer	-	LLDPE	LLDPE	LLDPE	LLDPE	LLDPE	LLDPE	LLDPE	LLDPE	LLDPE
Width and tolerance	mm	69.5±1	69.5±1	69.5±1	69.5±1	69.5±1	69.5±1	69.5±1	69.5±1	69.5±1
Coil length ⁱⁱ	m	100	100	100	100	100	100	100	100	100

Notes:

- Short-term tests in accordance with EN ISO 10319:2015.
- Values are subjected to 0.1% variation.
- Reduction Factors are at 20°C and for 114 years design life. Reduction factors for higher temperatures up to 40°C can be furnished on request.
- Partial Reduction factors – environmental effects are valid for pH range of 3 to 9.

- Intermediate characteristics strength products of GeoStrap can be manufactured on request.
- Our internal laboratory is certified by the National Accreditation Board for Testing and Calibration Laboratories (NABL).

Environmental Properties:

Global Warming Potential A1-A3 (GWP) = 3.3 kg CO₂e/kg
Environmental Product Declaration is available in accordance with ISO 14025 and EN 15804 (Certificate No.: EPD Number RTS_155_21)