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 **ForTex**  
Uni-Axial Geogrids

**ForTex Uni-Axial Geogrids** are high-strength materials which are manufactured by knitted polyester yarns in rectangular form and covered with polymeric coating, developed for uni-direction geogrids requirements for various applications of civil engineering.

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# ForTex

## Uni-Axial Geogrids

**ForTex Uni-Axial Geogrids** can be used for applications such as slope stabilization and GeoArme reinforced retaining structure systems where uni-directional reinforcement is required. Fast and economic application, high resistance against earthquake forces, flexible for deformations within limits and also its aesthetic appearance properties are effective.

### Fields of Application

- Bridge abutment walls.
- Bridge elevation walls.
- Road widening.
- Reinforced steep slopes.
- Reconstruction of landslide areas.
- Construction for gaining space.
- Walls for recreational areas.
- Rock fall barriers and noise barriers.

### Application

The ground surface where the geogrid will be laid should be leveled; the ground should be prepared by making sure that there are no harmful objects that will affect the application, such as plant roots, holes, large and sharp stones, etc. The geogrid should be laid smoothly and tightly on the prepared ground. Fluctuations should be corrected by stretching. Geogrid reinforcement should be laid side by side without leaving any gaps and rolls should be overlapped at the edges. Overlap width can be selected according to project or specifications. U (Π) or L (Γ) shaped steel will

be anchored to the ground at certain intervals along the overlaps of the laid material. Construction machinery and trucks will never be allowed to travel directly on the geogrid reinforcement. Trucks will move backwards and unload backfill to the area where the reinforcement has been laid. Construction machinery and trucks will be able to move on the geogrid reinforcement after at least 15 cm of filling material is laid. Detailed application should follow method statement of application project.



## Advantages

- Durable geogrids are resistant to seismic and dynamic loads and reliable.
- The grains of the fill material fully interlocks with the openings of the geogrid. Therefore, the tensile stress and the shear stress to act on the soil are compensated by geogrid, thus forming a reinforced platform.
- Polyester geogrids have high long-term strength, it is the most effective product for geogrid reinforced walls and slopes.

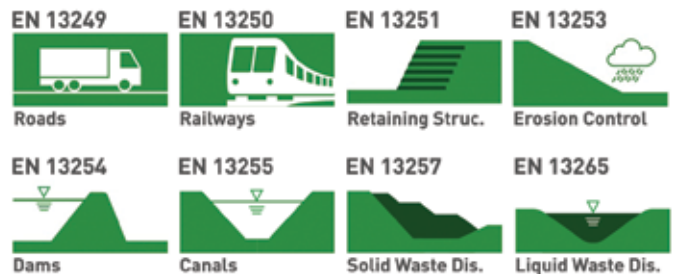
## Range of Products



Product	Standart (TS EN ISO 10319)	
	Tensile Strength (kN/m)	
	MD	CMD
ForTex GG 40/20 P	40	20
ForTex GG 60/20 P	60	20
ForTex GG 80/30 P	80	30
ForTex GG 100/30 P	100	30
ForTex GG 120/30 P	120	30
ForTex GG 150/30 P	150	30
ForTex GG 200/30 P	200	30
ForTex GG 300/30 P	300	30
ForTex GG 400/30 P	400	30
ForTex GG 600/30 P	600	30

Special types can be manufactured on request.

## Intended Use



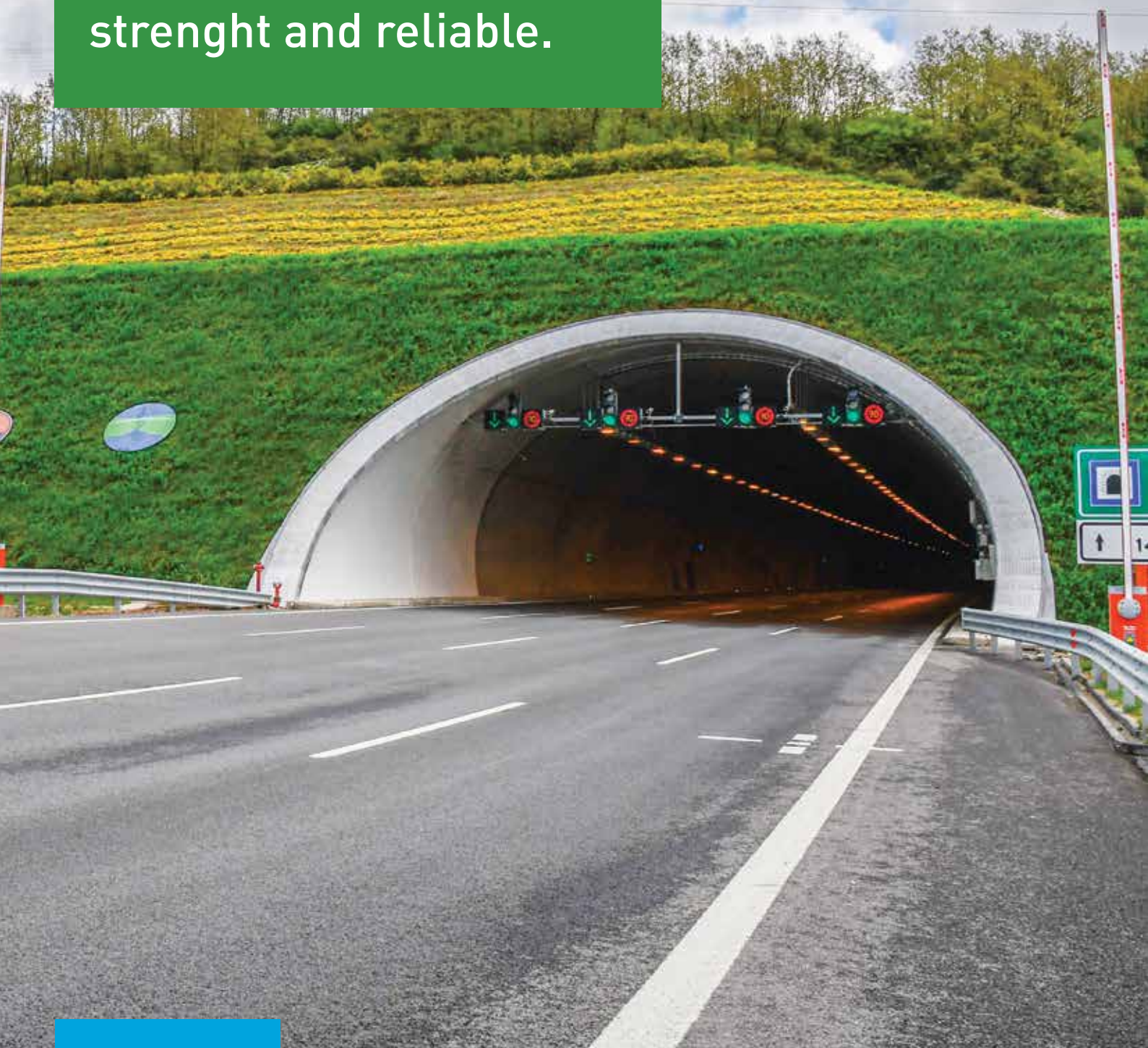
## Packaging And Storage

ForTex Uni-Axial Geogrids, is manufactured in rolls up to 5,25-6 m width and generally 50-100 m length. Each roll is shipped in PE packaging in protection against UV effects. If the rolls are to be stacked up on top of each other, it is recommended to stack up to maximum 6 rows. Rolls should be stored protected against direct sun light, rain, heat sources under cover. Please request loading information from your sale representative.



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**Fortex Uni-Axial  
Geogrids are durable,  
have high long term  
strenght and reliable.**



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 **ForTex**  
Bi-Axial Geogrids

**ForTex Bi-Axial Geogrids** are high-strength materials which are manufactured by knitted polyester yarns in the rectangular form and covered with polymeric coating, developed for bi-directional geogrid requirements for various applications of civil engineering.

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# ForTex

## Bi-Axial Geogrids

**ForTex Bi-Axial Geogrids** are mesh type geogrids with equal tensile strength in the machine direction and cross machine direction.

**ForTex Bi-Axial Geogrids** are high strength geogrids specifically developed for stabilization applications that required tensile strength of machine direction and cross machine direction.

### Fields of Application

- Providing higher bearing capacity for the runway, apron and taxiway foundations at airports.
- New line constructions of railway applications.
- Preventing local settlements in applications of highways and railways to be performed on poor soil.
- Durable resistant thickness of foundation and subbase.
- As reinforcement for highway expansion projects.
- Reducing quantities of ballast and sub-ballast of railways.
- Setting load transfer platform or as a basal reinforcement over piles under foundations or high embankments.
- Improving the load bearing capacity and preventing local settlements for the foundations against the heavy loads at the foundations of container storage yards and industrial structures.

### Application

The ground surface where geogrids will be laid should be leveled; the ground should be prepared by making sure that there are no harmful objects that will affect the application, such as plant roots, holes, large and sharp stones, etc. The geogrid should be laid smoothly and tightly on the prepared ground. Fluctuations should be corrected by stretching. Geogrid reinforcement should be laid side by side without leaving any gaps and rolls should be overlapped at the edges. Overlap width can be selected according to project or ground CBR conditions. U (Π) or L (Γ) shaped steel will be anchored to the ground at certain intervals along the overlaps of the laid material.

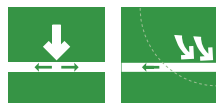
Geogrid can be wrap around at the embankment edges to prevent lateral spreading. Wrap around length is given at project. After the top filling is completed, wrap around part can flip over the filling and fixed with the help of U (Π) or L (Γ) steel bars.

Construction machinery and trucks will never be allowed to travel directly on the geogrid reinforcement. Trucks will move backwards and unload backfill to the area where the reinforcement has been laid. Construction machinery and trucks will be able to move on the geogrid reinforcement after at least 15 cm of filling material is laid.



## Advantages

- Enables application of the backfill layer to be laid on poor bearing soil with less thickness.
- Forms a platform with the fill on poor bearing soils and reduces differential settlements.
- When applied in multi layers, improves the load bearing capacity of the soil.
- Enables to reduce excavation thickness of poor soil.
- Durable resistant to seismic and dynamic loads, reliable and cost-effective.

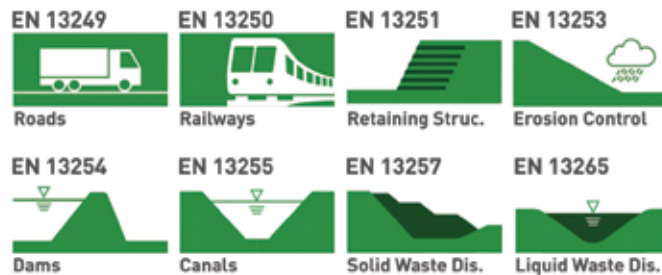


## Range of Products

Product	Standart (TS EN ISO 10319)	
	Tensile Strength (kN/m)	
	MD	CMD
ForTex GG 20/20 P	20	20
ForTex GG 30/30 P	30	30
ForTex GG 40/40 P	40	40
ForTex GG 60/60 P	60	60
ForTex GG 80/80 P	80	80
ForTex GG 100/100 P	100	100
ForTex GG 120/120 P	120	120
ForTex GG 150/150 P	150	150
ForTex GG 200/200 P	200	200
ForTex GG 300/300 P	300	300
ForTex GG 400/400 P	400	400
ForTex GG 600/600 P	600	600
ForTex GG 800/800 P	800	800

Special types can be manufactured on request.

## Intended Use



## Packaging And Storage

ForTex Bi-axial Geogrids, is manufactured in rolls up to 5,25-6 m width and generally 50-100 m length. Each roll is shipped in PE packaging in protected against UV effects. If the rolls are to be stacked up on top of each other, it is recommended to stack up to maximum 6 rows. Rolls should be stored protected against direct sun light, rain, heat sources under cover. Please request loading information from your sale representative.



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**Fortex Bi-Axial Geogrids**  
are durable, resistant  
to seismic and dynamic  
loads and reliable.



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 **ForTex**  
Geocomposites



**ForTex Geocomposites** are developed for bidirectional or unidirectional strength requirements for various applications of civil engineering serves reinforcement, separation and filtration requirements in one product.

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# ForTex

## Geocomposites

**ForTex Geocomposites** are manufactured by knitted polyester yarns in the rectangular form, covered with polymeric coating and combined with non-woven geotextile in production line.

**ForTex Bi-Axial and Uni-Axial Geocomposites** are specifically developed for separation of different filling materials has different grin size distribution, granular filling materials used on poor soil.

### Fields of Application

- Providing higher bearing capacity for the runway, apron and taxiway foundations at the airports.
- Providing drainage systems under high foundation loads of various projects.
- New line constructions of railway applications.
- Preventing local settlements in applications at highways and railways to be performed on poor soil.
- Reducing the thickness of foundation and subbase.
- As reinforcement for highway expansion projects.
- Reducing the quantities of ballast and sub-ballast of railways.
- Setting load transfer platform or as a basal reinforcement over piles under foundations or high embankments.
- Improving the load bearing capacity and preventing local settlements for the foundations against the heavy loads at the foundations of container storage yards and industrial structures.

### Application

The ground surface where the geocomposite will be laid should be leveled; the ground should be prepared by making sure that there are no harmful objects that will affect the application, such as plant roots, holes, large and sharp stones, etc. The geocomposite should be laid smoothly and tightly on the prepared ground. Fluctuations should be corrected by stretching. Geocomposite reinforcement should be laid side by side without leaving any gaps and rolls should be overlapped at the edges. Overlap width can be selected according to project or ground CBR conditions. U (Π) or L (Γ) shaped steel will be anchored to the ground

at certain intervals along the overlaps of the laid material. Geocomposite can be wraparound at the embankment edges to prevent lateral spreading. Wraparound length is given at project. After the top filling is completed, wraparound part can flip over the filling and fixed with the help of U (Π) or L (Γ) steel bars.

Construction machinery and trucks will never be allowed to travel directly on the geogrid reinforcement. Trucks will move backwards and unload backfill to the area where the reinforcement has been laid. Construction machinery and trucks will be able to move on the geogrid reinforcement after at least 15 cm of filling material is laid.



## Advantages

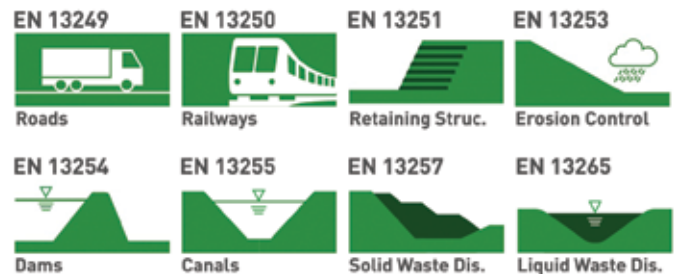
- Serves all advantages of ForTex Geocomposites adding filtration and separation properties.
- Enables ease of use and lower workmanship by combination of two products in one.
- Prevents the granular filling from sinking into the lower layer of the ground by applying on poor soils have water problems.
- Enables application of the backfill layer to be laid on poor bearing soil with less thickness.
- Forms a platform with the fill on poor bearing soils and reduce differential settlements.
- Enables to reduce excavation thickness of poor soil.
- Durable, resistant to seismic and dynamic loads, reliable and cost-effective.

## Range of Products

Products	Tensile Strength (kN/m)	
	MD	CMD
ForTex GC 20/20 P	20	20
ForTex GC 30/30 P	30	30
ForTex GC 40/40 P	40	40
ForTex GC 60/60 P	60	60
ForTex GC 80/80 P	80	80
ForTex GC 100/100 P	100	100
ForTex GC 120/120 P	120	120
ForTex GC 150/150 P	150	150
ForTex GC 200/200 P	200	200
ForTex GC 300/300 P	300	300
ForTex GC 400/400 P	400	400
ForTex GC 600/600 P	600	600
ForTex GC 800/800 P	800	800

Special types can be manufactured on request.

## Intended Use



## Packaging And Storage

ForTex Geocomposites, is manufactured in rolls up to 5,25-6 m width and generally 50-100 m length. Each roll is shipped in PE packaging in protection against UV effects. If the rolls are to be stacked up on top of each other, it is recommended to stack up to maximum 6 rows. Rolls should be stored protected against direct sun light, rain, heat sources under cover. Please request loading information from your sale representative.

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**GeoTeknik**  
Non-Woven Geotextiles

**GeoTeknik PP**, is a non-woven geotextile product produced from polypropylene based fiber blends by needlepunch method in white color.

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# **GeoTeknik** Non-Woven Geotextiles

**GeoTeknik PP is a Non-Woven Geotextile can be used as a filter, separation, drainage and protection layer with high static and dynamic puncture resistance between coarse and fine materials, between rough surfaces and membranes, to avoid obstruction of the pores of drainage pipes.**

## Fields of Application

### **GeoTeknik Filter (F);**

- At French drain ditches.
- At green roof drainage.
- At perforated drainage pipe coatings.
- At vertical applications such as tunnels, retaining walls and foundation walls.

### **GeoTeknik Protector (P):**

- Protection of polymeric and bitumen waterproofing membranes on roofs and terraces.
- Protection of external thermal insulation board on roofs or terraces.
- Protection of liquid waterproofing membrane on roofs, terrace or balconies.

## Advantages

- Made by pure staple fibers.
- Needled homogenously and properly.
- Needling number and frequency are adjustable.
- Line speed is adjustable.
- Fiber length and size (denier / diameter) are adjustable.
- Thermal treatment temperature is adjustable.
- Thermal treatment roll pressure is adjustable.
- Fiber blend and mixing and crimp are adjustable.
- Geoteknik PP Non-Woven Geotextiles can be produced up to 6 meters wide and 200 meters long from polypropylene

- Protection of waterproofing liner as PVC, TPO, LDPE, or HDPE on ponds and artificial lakes.
- Protection of thin screed and topping concrete layer.

### **GeoTeknik Separator (S):**

- To ensure the continuity of the capacity of the section and to reduce the formation of local settlements by preventing the sinking and contamination of the granular fill to be applied on the weak soil.
- Used at the coastal structures in order to prevent dislocation and mixing of fine and coarse material due to wave and scour effects.

### **GeoTeknik Drainage (D):**

- Used between two restrictive layer to transfer water to drainage pipes.

stable fiber blends to be used for filter, separation and/ or protection purposes at the buildings, roads, railways, airports, tunnels, dams, irrigation channels, lagoons, solid and liquid waste storages and disposal areas, sports fields etc.

## Application

GeoTeknik PP Non-Woven Geotextiles must be applied on ready surface tightly and properly in order to assure full surface contact without any fluctuation. GeoTeknik has to be overlap underneath the geotextile corner or edge minimum 25 cm to avoid sliding while backfilling process. Overlaps and other application details should be given on project.



## Range of Products

Property	Standard	Unit	1500	2000	2500	3000	3500	4000	4500	5000T	5000M	6000	8000	9000	10000	12000
Unit Weight	EN ISO 9864	gr/m <sup>2</sup> (min)	150	200	250	300	350	400	450	500	500	600	800	900	1000	1200
Intended Use			F	F	F	F	F	F	F	F	F	F	F	F	F	F
			S	S	S	S	S	S	S	S	S	S	S	S	S	S
										P	P	P	P	P	P	P

\*You can request technical information from your sale representative.  
Special types can be manufactured on request.

## Packaging And Storage

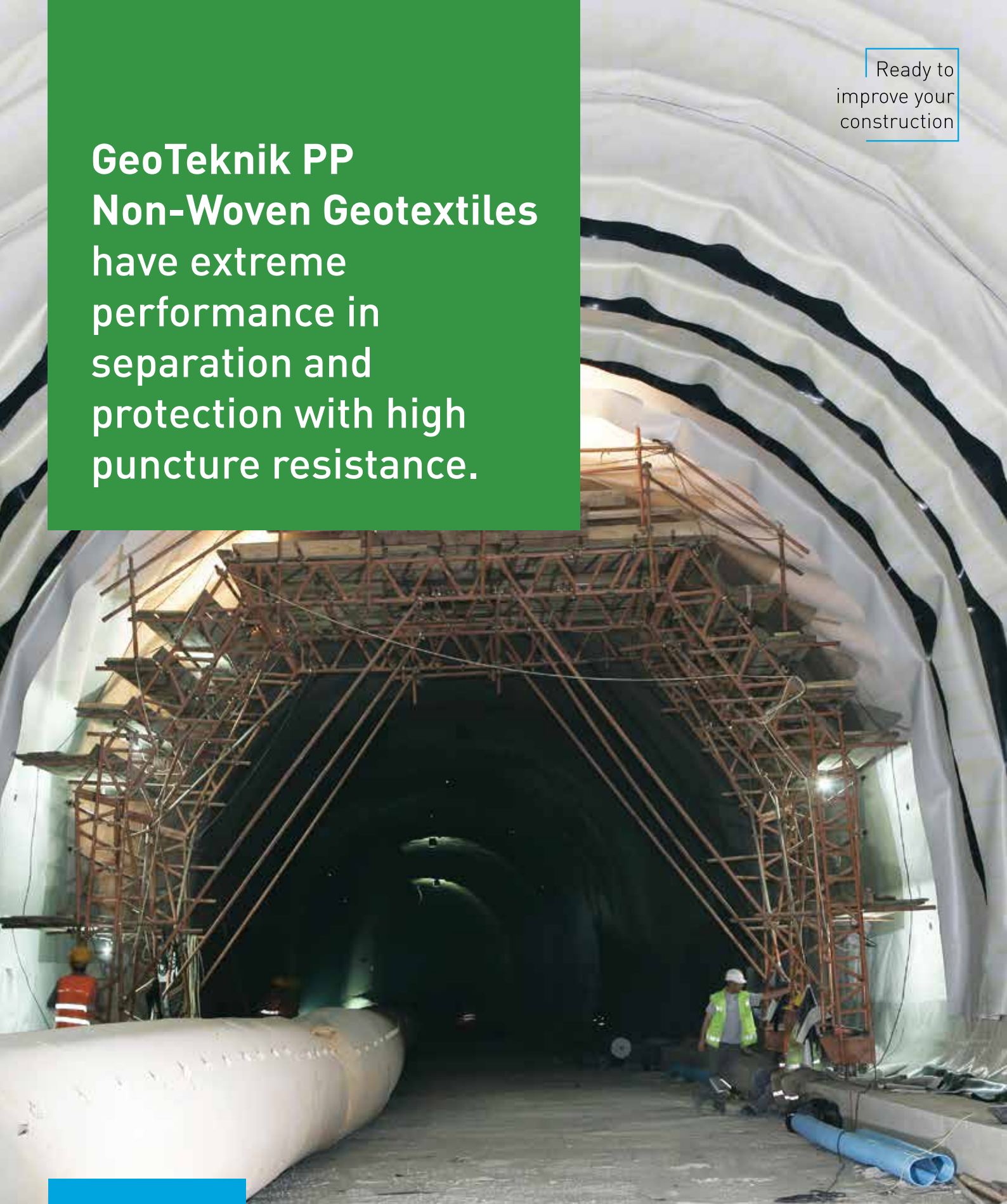
GeoTeknik PP Non-Woven Geotextiles are dispatched in the form of rolls with 1,0 m – 6,0 m width and 50 m – 100 m – 200 m length. Products are covered with PE sheet. Rolls should be stored under cover so that they are not affected by water, oil, mud, sunlight, heat and fire sources. Products must be kept indoor on a smooth surface.  
Truck : 6.00 m wide rolls - up to avg. 9000 kg.  
Container: 5.80 m wide rolls - up to avg. 9000 kg.

## Intended Use



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**GeoTeknik PP  
Non-Woven Geotextiles**  
have extreme  
performance in  
separation and  
protection with high  
puncture resistance.



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