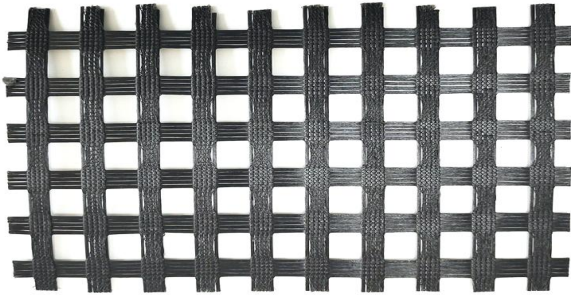


Warp-knitted polyester geogrid

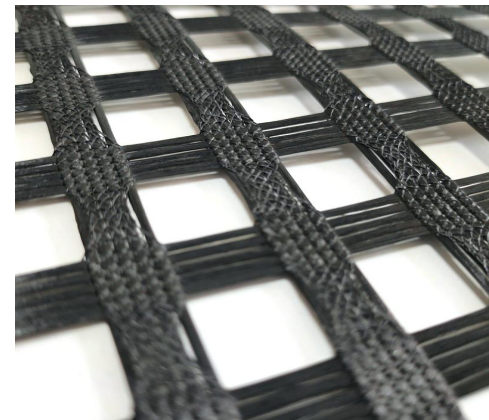


Warp-knitted polyester geogrid is made of high-strength and high-tensile modulus industrial polyester filament, which is oriented warp-knitted to form a grid fabric. The geogrid formed by coating is known as "fiber soft steel bar".

Polyester geogrid is a new kind of earthwork base material; which is used to strengthen the road surface and roadbed. These fibers are knitted or woven together to form a grid-like structure that provides reinforcement and stabilization to soil, rock, or other materials. Polyester geogrids are commonly used in construction and civil engineering projects to improve the strength and stability of roads, retaining walls, slopes, and other structures.

Warp-Knitted Polyester geogrid is woven by high strength polymer yarns. The Polyester geogrid is created through interlacing, usually at right angles, two or more yarns or filaments. PET geogrid is coated with polymer or nontoxic substance material for uv, acid and alkali resistance and prevents the biodecomposition.

Warp-knitted polyester geogrid adopts high strength polyester industrial filament, weaving warp mesh fabric through warp knitting, and processing it into geogrid by PVC coating. It is applied to the treatment of soft soil foundation and reinforcement of subgrade, dyke and other projects, so as to improve the quality of the project and reduce the cost of the project.



[Warp-knitted polyester geogrid]

Polyester warp knitted geogrid adopts high strength polyester industrial filament, weaving warp mesh fabric through warp knitting, and processing it into geogrid by PVC coating. It is applied to the treatment of soft soil foundation and reinforcement of subgrade, dyke and other projects, so as to improve the quality of the project and reduce the cost of the project.

They are resistant to chemical and biological degradation, making them durable and long-lasting. Additionally, polyester geogrids have high tensile strength and low elongation, allowing them to effectively distribute loads and reduce deformation in the soil.

WARP-KNITTED POLYESTER GEOGRID Features:

- High tensile strength: Warp-knitted polyester geogrid has high tensile strength, can withstand large loads, and is not prone to deformation, ensuring the stability of the project.
- Small elongation rate: A small elongation rate means that the length of the geogrid changes very little when it is subjected to tension, which is beneficial to maintaining its original shape and structure and improving its load-bearing capacity.
- High tear resistance: High tear resistance makes the geogrid less likely to be torn when subjected to tearing force, ensuring its integrity.
- Strong interlocking force with soil or gravel: Geogrid has strong interlocking force with soil or gravel, and can be closely combined with the soil to improve the integrity and stability of the soil.
- Aging resistance and corrosion resistance: Warp-knitted polyester geogrid has good aging resistance and corrosion resistance, and can be used for a long time in various environments to maintain stable performance.

Geogrid Products: Warp-knitted polyester geogrid

APPLICATION

Warp-knitted polyester geogrid adopts high strength polyester industrial filament, weaving warp mesh fabric through warp knitting, and processing it into geogrid by PVC coating. It is applied to the treatment of soft soil foundation and reinforcement of subgrade, dyke and other projects, so as to improve the quality of the project and reduce the cost of the project.

SPECIFICATIONS OF WARP-KNITTED POLYESTER GEOGRID

WARP-KNITTED POLYESTER GEOGRID-ASTM D6637

Index Item	Test Method	Unit	30-30	50-50	80-80	100-100	200-200
Polymer	-		High strength polyester yarn coated with PVC				
Ultimate Tensile Strength, MD	ASTM D6637	kN/m	30	50	80	100	200
Ultimate Tensile Strength, TD	ASTM D6637	kN/m	30	50	80	100	200
Strain @Ultimate Strength, MD	ASTM D6637	%	13				
Mesh size, MD	-	mm	25.4	25.4	25.4	25.4	25.4
Mesh size, TD	-	mm	25.4	25.4	25.4	25.4	25.4
Roll Width	-	m	3.95 or 5.0 or 5.2 or 5.95				
Roll Length	-	m	100				

WARP-KNITTED POLYESTER GEOGRID-EN ISO 10319

Polyester Biaxial Geogrid						
Property		Test Method	PET 30-30	PET 80-80	PET 120-120	PET 200-200
Ultimate tensile strength(kn/m)	MD	EN ISO 10319	30	80	120	200
	CD		30	80	120	200
Elongation at max load (%)	MD		13			
	CD		13			
Mesh Size (mm)		12-50				
Roll width(m)		1-6				
Roll length(m)		50-200				

Polyester Uniaxial Geogrid

Property		Test Method	PET 60-30	PET 80-30	PET 100-30	PET 120-30	PET 150-30	PET 180-30	PET 200-30
Ultimate tensile strength(kn/m)	MD	EN ISO 10319	60	80	100	120	150	180	200
	CD		30	30	30	30	30	30	30
Elongation at max load (%)	MD		13						
	CD		13						
Mesh Size (mm)		12-50							
Roll width(m)		1-6							
Roll length(m)		50-200							

Geogrid Products: Warp-knitted polyester geogrid

SPECIFICATIONS OF WARP-KNITTED POLYESTER GEOGRID

Specifications and performance parameters of warp knitting polyester geogrid standard															
Item	PET-20-20	PET-30-30	PET-40-40	PET-50-50	PET-80-80	PET-100-100	PET-140-140	PET-180-180	PET-200-200	PET-300-300	PET-400-400	PET-500-500	PET-600-600	PET-1000-1000	
Elongation %	13														
The intensity of KN/m	The longitudinal	20	30	40	50	80	100	140	180	200	300	400	500	600	1000
	The transverse	20	30	40	50	80	100	140	180	200	300	400	500	600	1000
Center distance of grid mm	12.7*12.7, 25.4*25.4, 40*40														
Width (m)	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	
Warp knitting polyester geogrid abnormality															
Performance/Specifications	PET-50-30	PET-60-35	PET-80-30	PET-80-50	PET-100-50	PET-100-85	PET-120-50	PET-140-60	PET-160-80	PET-180-100	PET-200-100	PET-300-200	PET-400-300	PET-600-400	
Elongation %	13														
The intensity of KN/m	The longitudinal	50	60	80	80	100	100	120	140	160	180	200	300	400	600
	The transverse	30	35	30	50	85	85	50	60	80	100	100	200	300	400
Center distance of grid mm	12.7*12.7, 25.4*25.4, 40*40														
Width (m)	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	1~6	
note	Note: specific specifications can be customized according to customer needs.														

Geogrid Products: Warp-knitted polyester geogrid

PROJECTS CASE OF WARP-KNITTED POLYESTER GEOGRID



[Road Support in Morocco]



[Embankment stabilization in Uganda]

WARP-KNITTED FIBERGLASS GEOGRID CONSTRUCTION

Construction method of geogrid :

- The paving surface of the geogrid should be relatively flat. After the paving layer has passed the acceptance inspection, in order to prevent longitudinal skew, first draw a white line or a hanging line on the paving layer according to the width, and then the paving can begin. Fix the ends of the grille with iron nails (8 nails per meter wide, fixed at even distances).
- After fixing the ends of the grille, use a paving machine to slowly pull the grille forward. Manually tighten and straighten it every 10 meters until one roll of grille is laid, and then lay the next roll. Volume, the operation is the same as before.
- After paving one roll, use a 6T-10T roller to roll it from the starting point in the forward direction. (If it is paved on the mid-surface layer and leveling layer, it is better to use a steel roller roller; if the grid is laid directly on the concrete pavement, it is better to use a rubber roller roller.).
- Joint paving: The unit of roll length is used as the paving section length. After the section length that should be paved with grating is covered, the overall paving quality is checked again, and then the next section is paved.
- When paving the next section, the grid and grating can be overlapped with a length of 10-15CM and fixed with iron nails or wooden wedges before continuing to pave the second section in the forward direction. By analogy, the operation requirements are the same as before.

- Warp knitted polyester geogrid is used in highway, railway, municipal road and other road soft roadbed reinforcement, can effectively improve the roadbed strength and delay the reflection cracks of the road.
- The reinforcement and isolation of dam and river in hydraulic engineering of warp knitted polyester geogrid, reinforce the soft soil foundation, strengthen its protection ability, and improve the bearing capacity and stability of the foundation.
- Warp knitted polyester geogrid reinforced embankment slope, retaining wall reinforcement, enhance the overall strength, highway, railway, water conservancy and other soft soil foundation reinforcement.
- Warp knitted polyester geogrid for railway ballast protection: because the train vibration and wind and rain, causing loss of ballast, with geogrid encased ballast, ballast to prevent the loss, improve the stability of the roadbed.
- Warp knitted polyester geogrid for Railway Retaining Wall: the geogrid reinforced retaining wall of Railway on the train station, for example with Taiwan and Taiwan goods, can prolong the service life, reduce maintenance costs.

