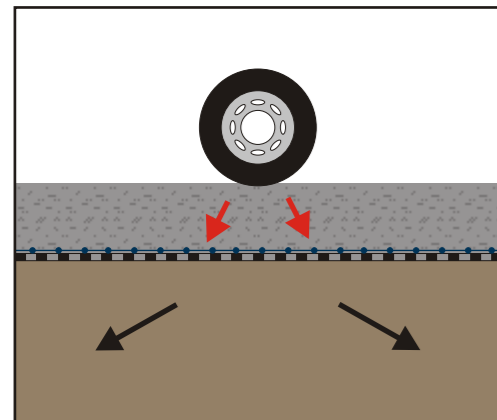
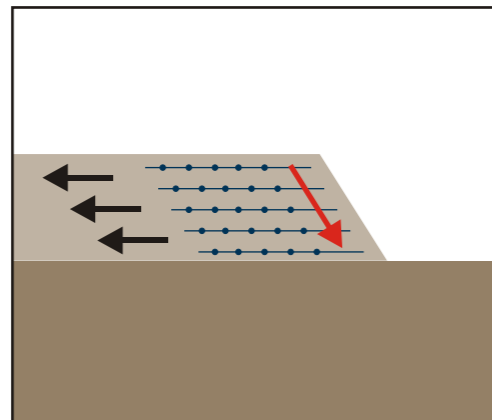


GEOGRIDS - the strengthening and reinforcement of ground

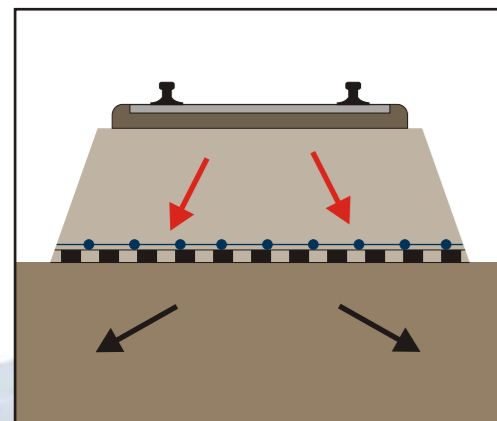
Strengthen the construction of roads



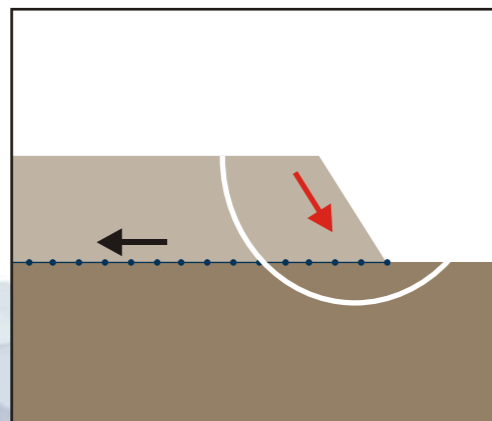
Reinforcement of the embankments



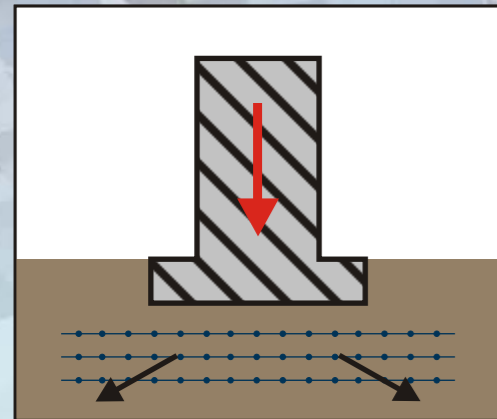
Strengthen the construction of railways



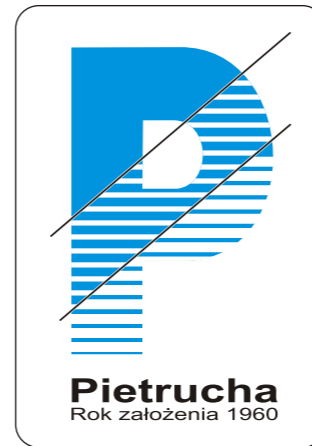
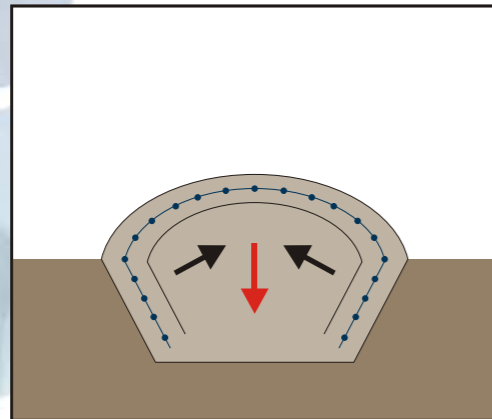
Stability of the dams and the embankments



Reinforcement of the foundations of engineering structures



Compensation settlement and stabilization of the embankments on rubbish dumps



Pietrucha Group is a family owned conglomerate associating one commercial and three plastics processing companies located in Poland. The group's manufacturing divisions operate in three major facilities and employ over 350 workers.

In our technologically advanced production plants associated companies manufacture variety of thermoplastic constructional profiles and geosynthetic materials.

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Firmly and steadily tread on the ground.



Strengthen the construction of roads



Strengthen the construction of railways



Strengthening the stability of dams and embankments



Firmly and steadily tread on the ground.



Applications:

- construction of roads and traffic areas
- railways
- drainage systems
- construction of tunnels and underground structures
- earthworks, foundations and retaining structures
- anti-erosion protection
- tanks of liquid waste
- solid waste landfills
- channels
- water tanks and dams
- construction of storage yards and parking lots in difficult ground-water conditions

Advantages in building communication networks:

- saving the material for the implementation of the structural layer
- increasing the capacity of the existing ground
- alignment of subsidence over a larger area
- improve protection against denial of land
- preventing the movement of soil bearing layer of fine ground
- decrease in the pore water pressure

Advantages in ground construction :

- shorter construction time due to smaller amounts of bulk aggregate
- steady increase capacity by spreading the load
- abandonment of the high material consumption rate land replacement
- conservation of resources through the reuse of the volume of freight to reduce construction costs
- accelerate the consolidation of the ground
- preventing the movement of aggregate dam body to the ground

The manufacturing process of extruded geogrids is based on extrusion of thermoplastic flat sheet (PP modifiers in biaxial geogrids or HDPE modifiers in uniaxial geogrids), which is subsequently micro - perforated (according to precisely defined pattern) and stretched in the longitudinal (uniaxial geogrids) and transverse (biaxial geogrids) directions.



Product specification POLGRID UX

		POLGRID UX	Unit	UX 40	UX 55	UX 80	UX 120	UX 160
PROPERTIES	MATERIAL	Polymer	–	HDPE	HDPE	HDPE	HDPE	HDPE
		Minimum carbon black	%	2	2	2	2	2
	MECHANICAL	Peak tensile strength*	kN / m	40	55	80	120	160
		Tensile strength at 2% strain cd/md*	kN / m	10	13	21	35	43
		Tensile strength at 5% strain cd/md*	kN / m	19	25	40	69	84
		Yield point elongation*	%	15 (± 5)	15 (± 5)	15 (± 5)	15 (± 5)	15 (± 5)
	PHYSICAL	Unit weight	kg / m ²	0,350	0,420	0,600	0,940	1,260
		Aperture size - cd	mm	235 (± 20)	235 (± 20)	235 (± 20)	235 (± 20)	235 (± 20)
		Aperture size –md	mm	16 (± 2)	16 (± 2)	16 (± 2)	16 (± 2)	16 (± 2)
	DELIVERY	Roll length	m	50	50	50	50	50
Roll width		m	1,0-1,1	1,0-1,1	1,0-1,1	1,0-1,1	1,0-1,1	

* EN ISO 10319



Product specification POLGRID BX

		POLGRID BX	Unit	BX 15/15	BX 20/20	BX 30/30	BX 40/40	BX 45/45
PROPERTIES	MATERIAL	Polymer	–	PP	PP	PP	PP	PP
		Minimum carbon black	%	2	2	2	2	2
	MECHANICAL	Peak tensile strength*	kN / m	15 / 15	20 / 20	30 / 30	40 / 40	45 / 45
		Tensile strength at 2% strain cd/md*	kN / m	7 / 7	8 / 8	11 / 11	14 / 14	16 / 16
		Tensile strength at 5% strain cd/md*	kN / m	9 / 9	14 / 14	21 / 21	28 / 28	32 / 32
		Yield point elongation*	%	15,2 (± 5,1)	15,2 (± 5,1)	15,2 (± 5,1)	15,2 (± 5,1)	15,2 (± 5,1)
	PHYSICAL	Unit weight	kg / m ²	0,189	0,250	0,370	0,550	0,670
		Aperture size - cd	mm	39 (± 4)	39 (± 4)	39 (± 4)	39 (± 4)	39 (± 4)
		Aperture size –md	mm	39 (± 4)	39 (± 4)	39 (± 4)	39 (± 4)	39 (± 4)
	DELIVERY	Roll length	m	75	75	50	30	30
Roll width		m	4	4	4	4	4	

* EN ISO 10319