Polyethylene (PE) Warning Tapes - Non Detectable Specifications

Qatar National Plastic Factory manufactures high-quality warning tape with brand name "Qplast", the installers can highlight pipes and cables so that workers can identify them quickly and easily in future excavation. This practice improves safety in the workplace and helps to minimize the risk of costly mistakes. Qatar National Plastic manufactures low-density polyethylene and high density polyethylene tapes (on special request only) this makes them long lasting, easy to apply and efficient way to safeguard the well-being of workforce in construction. Plastic underground warning tape is usually installed at a specified distance directly above the service line. This makes it easier for utilities to be located and identified.

Advantages of Qplast Warning Tapes

- Manufactured from prime grade virgin low density polyethylene (LDPE)
- Highly resistant to alkalies and acidic soil
- Custom manufacturing options (width, length, thickness, warning message, colour etc.)
- Lead free pigments used in manufacturing
- Will not undergo for biodegradation.

Typical Properties	Unit	Value
Density	gm/cm³	0.910-0.930
Melt flow index 190°C (5kg)	gm/10min	< 2.5
Vicat softening Point	° C	110
Working temperature	° C	0-55
Tensile strength @yield MD (machine direction)	N/mm²	≥ 12.5
Tensile strength @yield TD (transverse direction)	N/mm²	≥ 10.5
Elongation at break MD/TD	%	≥ 400/450
Chemical resistance		Rot- proof Resistant from PH-2.5 to PH-11

Water Mains (Kahramaa Water Dept.)
Size: 15cm x 500mtr - 200 microns
Colour: Blue (RAL 5005)

Drainage System (Ashghal Drainage)
Size: 15cm x 500mtr - 200 microns
Colour: Reddish (RAL 3020)

Surface Water (Ashghal Drainage)
Size: 15cm x 500mtr - 200 microns
Colour: Grey (RAL 7040)

Treated Sewage Effluent (Ashghal Drainage)
Size: 15cm x 500mtr - 200 microns
Colour: Green (RAL 6029)

LV/MV Network (Kahramaa Electrical Dept.)
Size: 15cm x 1000mtr - 100 microns
Colour: Yellow (RAL 1028)

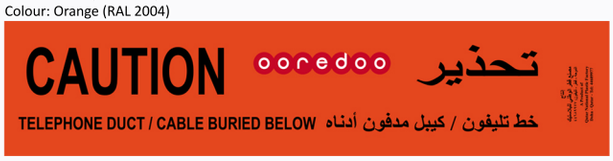
LV/MV Network (Kahramaa Electrical Dept.)
Size: 40cm x 1000mtr - 100 microns
Colour: Yellow (RAL 1028)

Street Lighting Cables (Ashghal)
Size: 40cm x 1000mtr - 100 microns
Colour: Yellow (RAL 1028)

Unified Government Network
Size: 6 inches (15.4cm) x 305mtr - 180 microns
Colour: Yellow (RAL 1028)

MOI-SSD
Size: 35cm x 500mtr - 150 microns
Colour: Yellow (RAL 1028)

Ooredoo Qatar
Size: 6 inches (153.4mm) x 1000 feet - 180 microns
Colour: Orange (RAL 2004)



QAF (Qatar Armed Forces)
Size: 15cm x 500mtr - 150 microns
Colour: Orange (RAL 2004)

Vodafone Qatar
Size: 20cm x 500mtr - 150 microns
Colour: Orange (RAL 2004)

Above mentioned images are reference only. QNPF manufactures all warning tapes (for all utilities) with custom design.

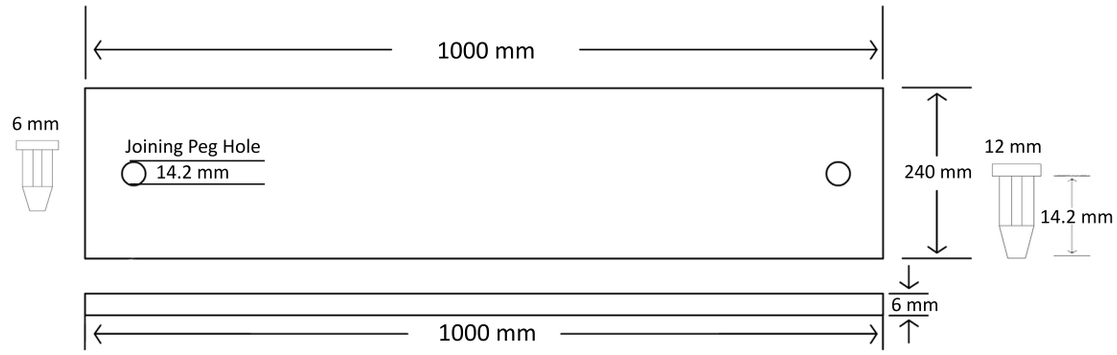
Qplast

Polyethylene (PE) Tiles for Cable Protection Specifications

Heavy duty tiles manufactured from recycled polyethylene that provide highly visible warnings, good impact and puncture protection from excavation tools and machinery. Qatar National Plastic cable protection tiles are widely used to protect buried high voltage and medium voltage cables, fibre optic cables, instrument cables and other utilities . Each tile supplied with a peg allowing strong longitudinal joining, we offer separate peg for 12mm and 6mm tiles. Due to easy to handle and install, Qplast tiles offer a much higher level of protection than alternative systems.

Width mm	Length mm	Thickness mm
240	1000	6
240	1000	8
240	1000	12
300	1000	8
300	1000	12
450	1000	12

Typical Properties	Unit	Value
Density	gm/cm³	0.91-0.96
Vicat softening Point	° C	110
Working temperature	° C	0-55
Tensile strength @yield	N/mm²	≥9
Chemical resistance		Rot- proof Resistant from PH-2.5 to PH-11 Resistant to acid, alkalies and subsoil salts.



240mm x 1000mm x 6mm - Caution: Electric Cable Below (Kahramaa Electrical Department)

240mm x 1000mm x 6mm - Caution: CCTV Cable Below

240mm x 1000mm x 6mm - Caution: High Voltage Cable Below

300mm x 1000mm x 8mm - Caution: Instrument Cable Below

300mm x 1000mm x 8mm - Caution: Fibre Optic Cable Below

Above mentioned images are for reference only. QNPF manufactures all cable tiles (for all utilities) with custom design.

Qplast

Polyethylene (PE) Sleeves for D.I. Pipes — Specifications

Polyethylene (PE) encasement is the easiest, most economical and most effective method of corrosion protection for Ductile Iron pipe and fittings installed in aggressive soils. This sleeve are manufactured with virgin LDPE as main ingredient incorporated with UV stabilizer and colorants.

Polyethylene (PE) encasing or Sleeving acts as a non bonded film, which prevents direct contact of the pipe with the corrosive soil which effectively reduces the electrolyte available to support corrosion activity to any moisture that might be present in the thin annular space between the pipe and polyethylene sleeve. The groundwater would seep beneath the wrap. Although the entrapped water initially has the corrosive characteristics of the surrounding soil, the available dissolved oxygen supply beneath the wrap is soon reduced and the oxidation process stops long before any damage occurs. The water enters state of stagnant equilibrium and uniform environment exist around the pipe.

Typical Properties	Unit	Value
Density	gm/cm³	0.910-0.930
Melt flow index 190°C (5kg)	gm/10min	< 2.5
Vicat softening Point	° C	110
Working temperature	° C	0-55
Tensile strength @yield MD (machine direction)	N/mm²	≥ 12.5
Tensile strength @yield TD (transverse direction)	N/mm²	≥ 10.5
Elongation at break MD/TD	%	≥ 400/450
Chemical resistance		Rot- proof Resistant from PH-2.5 to PH-11

Potable Water Network DI Pipes

Standard: ISO 8180
Thickness: 225±25 microns
Colour: Blue RAL 5005
UV protection: Enabled

Nominal Ø of D.I. Pipe (mm)	Lay flat width (mm)	Length (Mtr)
80	280	200
100	320	200
150	435	200
200	540	200
300	755	200
400	980	200
450	1090	200
500	1215	100
600	1440	100
700	1610	100
800	1825	100
900	2025	100
1000	2255	100
1200	2500	100
1400	2800	100
1600	3100	100

Above sizes are approved from KAHRAMAA water department.

Drainage Network DI Pipes

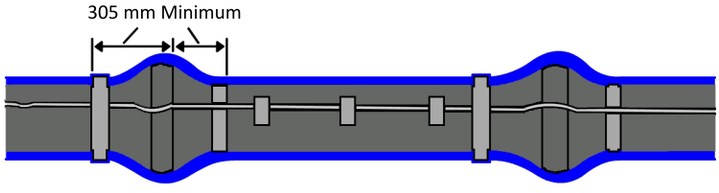
Standard: BS 6076
Thickness: 200-250 microns
Colour: Black RAL 9004
UV protection: Enabled

Lay flat width of tubular polyethylene film			
Nominal internal diameter of pipe (mm)	For use with pipeline incorporating push-in flexible joints (mm)	For use with pipeline incorporating mechanical flexible joints (mm)	Length (Mtr)
80	350	-	200
100	350	450	200
150	450	550	200
200	550	650	200
250	650	700	200
300	700	800	200
350	800	-	200
400	1100	1100	200
450	1100	1100	200
500	1350	1350	100
600	1350	1350	100
700	1750	-	100
800	1750	-	100
900	2000	-	100
1000	2000	-	100
1100	2500	-	100
1200	2500	-	100

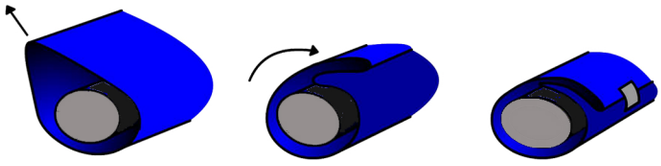
Above sizes are complying QCS Section 8,3,3.7.5 requirements for sleeves for drainage networks.

Installation

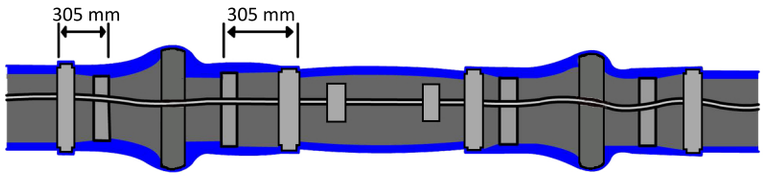
Method A: Cut polyethylene sleeve to a length approximately 600mm longer than the pipe length. Slip the tube around the pipe, move it to provide 300mm overlap on each adjacent pipe section and bunch it lengthwise until it clears the pipe ends. Lower the pipe into the trench and make up the pipe joint with the preceding section of pipe. A shallow bell hole in bedding must be made at the joints to facilitate installation of the polyethylene sleeve. After assembling the pipe joint, make the overlap of the polyethylene sleeve. Pull the bunched polyethylene sleeve from the preceding length of pipe, slip it over the end of the new length of pipe, and secure it in place. Then slip the end of the polyethylene sleeve from the new pipe section over the end of the first wrap until it overlaps the joint at the end of the preceding length of pipe. Secure the overlap in place. Take up the slack width at the top of the pipe as to make a snug but not tight fit along the barrel of the pipe, securing the fold at quarter points by means of adhesive tapes.



One length of polyethylene tube for each length of pipe, overlapped at joint.



Qplast



Method B (Recommended for bolted joints): Cut polyethylene sleeve to a length approximately 600mm shorter than that of the pipe length. Slip the sleeve around the pipe and move it to provide 150 mm of bare pipe at each end. Take up the slack width at the top of the pipe to make a snug but not tight fit along the barrel of the pipe, securing the fold at quarter points with adhesive tapes. Before making up a joint, slip a 900mm length of polyethylene sleeve over the end of the preceding pipe section, bunch it lengthwise. Alternatively, place a 900mm length of polyethylene sleeve in the trench under the joint to be made. After completing the joint, pull the 900mm length of polyethylene sleeve over or around the joint, overlapping the polyethylene sleeve previously installed on each adjacent section of the pipe by at least 300mm and make each end snug and apply adhesive tape. A shallow bell hole is necessary and shall be made at joints to facilitate the installation of the polyethylene sleeve.

For installation in wet areas for method A and B circumferential adhesive tape wrap (where applicable) could be placed in the length of 600mm. Cuts, tears, punchers or any other damages shall be repaired with a piece polyethylene sleeve or adhesive tape before filling the trench.

LDPE Construction Sheet

Low Density Polyethylene (LDPE) Films are manufactured using virgin low density polyethylene raw material (film grade). We manufacture these sheets under strict quality control and in accordance to British standards BS 2782 and BS 3012. Generally the sheets are transparent, However, we also produce coloured or tinted sheets as per the client's requirements. LDPE sheets have a wide range of applications like water vapour barriers in construction of roads, multi-storey buildings, farms and covering for goods.

Open Width	Thickness			
Mtr	Micron	Inches	Mill	Gauge
2 to 10	25	0.025	1	100
2 to 10	50	0.050	2	200
2 to 8	100	0.100	4	400
2 to 8	125	0.125	5	500
2 to 8	150	0.150	6	600
2 to 8	200	0.20	8	800
2 to 8	250	0.25	10	1000
2 to 6	300	0.30	12	1200
2 to 6	400	0.40	16	1600
2 to 3	500	0.50	20	2000

Length of roll is available from 6mtr to 100mtr

Typical Properties	Unit	Value
Density	gm/cm³	0.91-0.93
Vicat softening Point	° C	110
Working temperature	° C	0-45
Tensile strength @yield	N/mm²	≥9
Elongation	%	450-600

LDPE Green House Films

This films are manufactured virgin low density polyethylene (LDPE) as the main ingredient, also 3% to 5% UV-stabilizer has incorporated to this film to assure the stability of film while exposing to the sunlight. The film is manufactured either in light green colour or customized colour. The films are used to protect crops from sunlight in agricultural farms.

Open Width &	Thickness	
Length Mtr	Micron	Gauge
5.5x14	100	400
5.5x14	200	800
5.5x45	200	800
5.5x14	250	1000
5.5x14	300	1200

LDPE Agricultural Mulch Films

The Agricultural Mulch films are manufactured using virgin LDPE. This films are available in black and transparent colours with UV protection. This film is used in agricultural projects as a deterrent against sunlight. Mulch films are used to modify soil temperature, limit weed growth, prevent moisture loss, and improve crop yield as well as precocity.

Open Width &	Thickness	
Length Mtr	Micron	Gauge
2X100	100	400
4X100	100	400
2X100	200	800
4X100	200	800
4X100	250	1000

Width and length are customizable.