

**Pexgol** Piping Solutions

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# Aquaculture

—  
2018

**pexgol**  
X-LINKED PIPING SOLUTIONS





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# Pipes and Pexgol Solutions

**Pexgol**, a division of **Golan Plastic Products**, is a global leader of heavy duty Pex-a pipe material. Produced under high pressures and temperatures, Pexgol products results in a chemically unbreakable cross-connection between polyethylene chains.

**Pexgol** cross-linked polyethylene pipe system is the result of a high stability molecular

network formation, with a unique and adaptable design that offers an excellent solution for the transport of liquids and other substances that require great chemical and mechanical resistance.

**Pexgol presents a wide range of products that respond to different needs and applications of the industry.**



# Pexgol Aqua

**A smart pipe designed for the aquaculture industry.**

**Pexgol Aqua** pipes are made of materials especially suitable for continuous use in hostile environments, and are based on decades of experience in pipeline technology development.

**Pexgol Aqua** is the line of Pexgol pipes specially designed for the aquaculture industry. It covers a wide spectrum of measurements, from 20 mm to 710 mm fulfilling different functions in the breeding process. **It is possible to acquire Pexgol Aqua in three variants**, each responds to different needs in the industry:

- **Antistatic pipes:** from  $10^{-6}$  to  $10^{-10}$  ohm / square.
- **Conductive piping:** up to  $10^{-5}$  ohm / square.
- **Regular pipes:** With special resistance to UV rays.



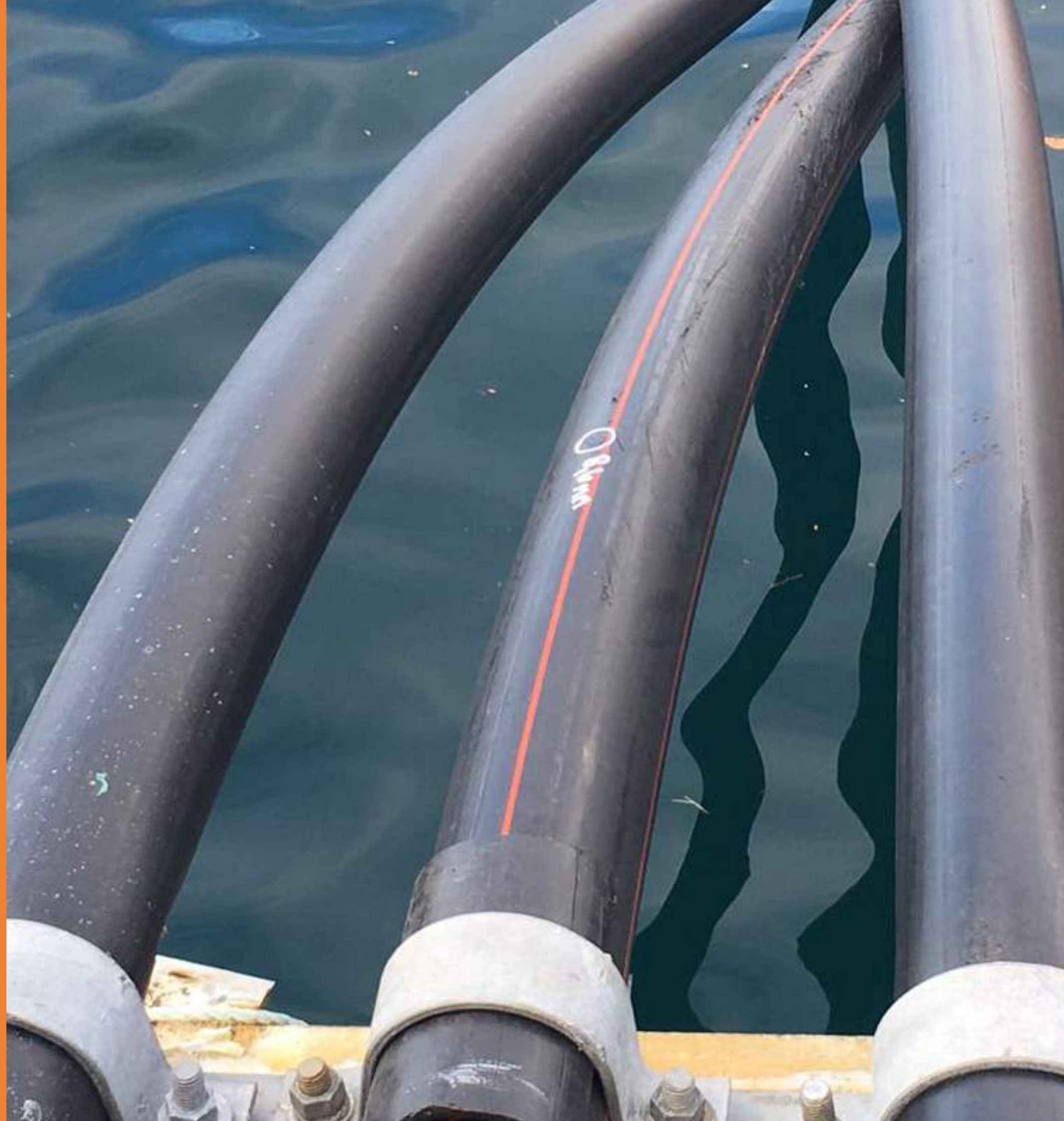
**A smart pipe  
designed for  
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industry.**



The smooth inner surface substantially decreases the friction allowing a more fluid transport of **pellets** in the feeding process, substantially reducing dust and pellets getting caught on the smooth surface. These characteristics, together with resistance to the hostile environment and UV radiation, allows continuous feeding without interruption allow for the repair of pipes, and contribute to a profitable feeding and fish growth.

**Pexgol Aqua pipes can withstand hurricanes and storms.** Thanks to its unique property of being a material with thermal memory, it guarantees that even after heavy storms where the pipe is deformed, they return to their original shape.

The Antistatic and Conductive pipes substantially reduce and even completely eliminate in some cases, the danger of receiving an electric shock due to the phenomenon of static electricity that forms during the feeding process.







# Advantages of Pexgol Aqua pipes

1.

**High resistance to abrasion caused by pellets.** They have a wear resistance 3 to 5 times higher than a conventional HDPE.

2.

Longer lifespan and virtually no maintenance in one or more cycles. After installation there is no manipulation or logistics related to the pipeline, so the focus is on feeding the fish, and not on repairing the pipes.

3.

They reduce the volumes of small and bigger feed particles resulting in more efficient feeding.

4.

The substantial reduction of small feed particles is associated with the low coefficient of roughness of the internal surface, which also minimizes the breakage of the food when rubbing against the internal surface when it is forced to move at the transport speed.

- **Coefficient Hazen Williams**  
Pexgol Aqua → 155      HDPE → 150
- **Absolute Roughness**  
Pexgol Aqua → 0.0006      HDPE → 0.0015  
**60% less absolute roughness**

5.

Superior resistance to wave movements.

6.

There is **no obstruction of the food inside the pipe** and since it is more flexible and supplied in long lengths easy to be handled.

7.

Thanks to the cross-linking process, **Pexgol Aqua has an extraordinary mechanical resistance.** At the exit of the food spreader and other areas of the food transport circuit, a conventional HDPE pipe undergoes fatigue and breakage due to wave movement produced by the waves and the rubbing of the clamps.

8.

Pexgol Aqua thanks to its ability to “relax” resists external pressures without damage. Once released from pressure **Pexgol Aqua will return to its original form.**

9.

**Resistant to faults by slow crack propagation** thanks to its resistance to tension and its **mechanical and thermal memory.**

10.

**Pexgol Aqua** is more **flexible** than HDPE therefore, and therefore easier to handle. As well as **can be supplied in long lengths.** For example, in diameters of 90 mm it is possible to provide **up to 500 continuous meters without joints**, while HDPE pipe length is maximum 100 meters. Due to the continuous length there are less or almost no electrofusion joints between the feed lines that transport the pellets from the floating device to the cages.

# Pexgol Instrumenta

We offer a full piping solution that includes all kinds of fittings and accessories to provide and easy, cost-efficient and quick installation.



## ELECTROFUSION FITTINGS

**Electrofusion fittings are used to connect Pexgol cross-linked polyethylene pipes.** The pipes and fitting are joined by electrofusion welding, creating a leak-proof seal. During the electrofusion process, a current is transported through a heating wire. The surrounding material (around the wire) is melted, welding the pipe to the fitting.

Service temperature for the PE 100 electrofusion fittings is limited to 40°C. For higher temperatures Pex-2-Pex electrofusion couplers can be used.

**Pexgol** approves and supplies the following fittings systems and installation tools: Plas-son, Friatec, GF/Wavin.



## FLARED END CONNECTORS

The ends of the **Pexgol** pipe are heated and flared by a proprietary process. The final pipe end is similar to a stub end.

The loose flange is usually mounted over the

pipe during the flaring process. Alternatively, split flanges can be supplied to be mounted later. **Pexgol** system consists of pipe and flanges conforming to different standards.





# Standards

Pexgol Aqua pipes comply with **ISO 9001:2015 standard**.

# Transportation

Pexgol Aqua pipes are available in diameters from 63 mm (2") to 450 mm (18") and are available to be shipped in coils.

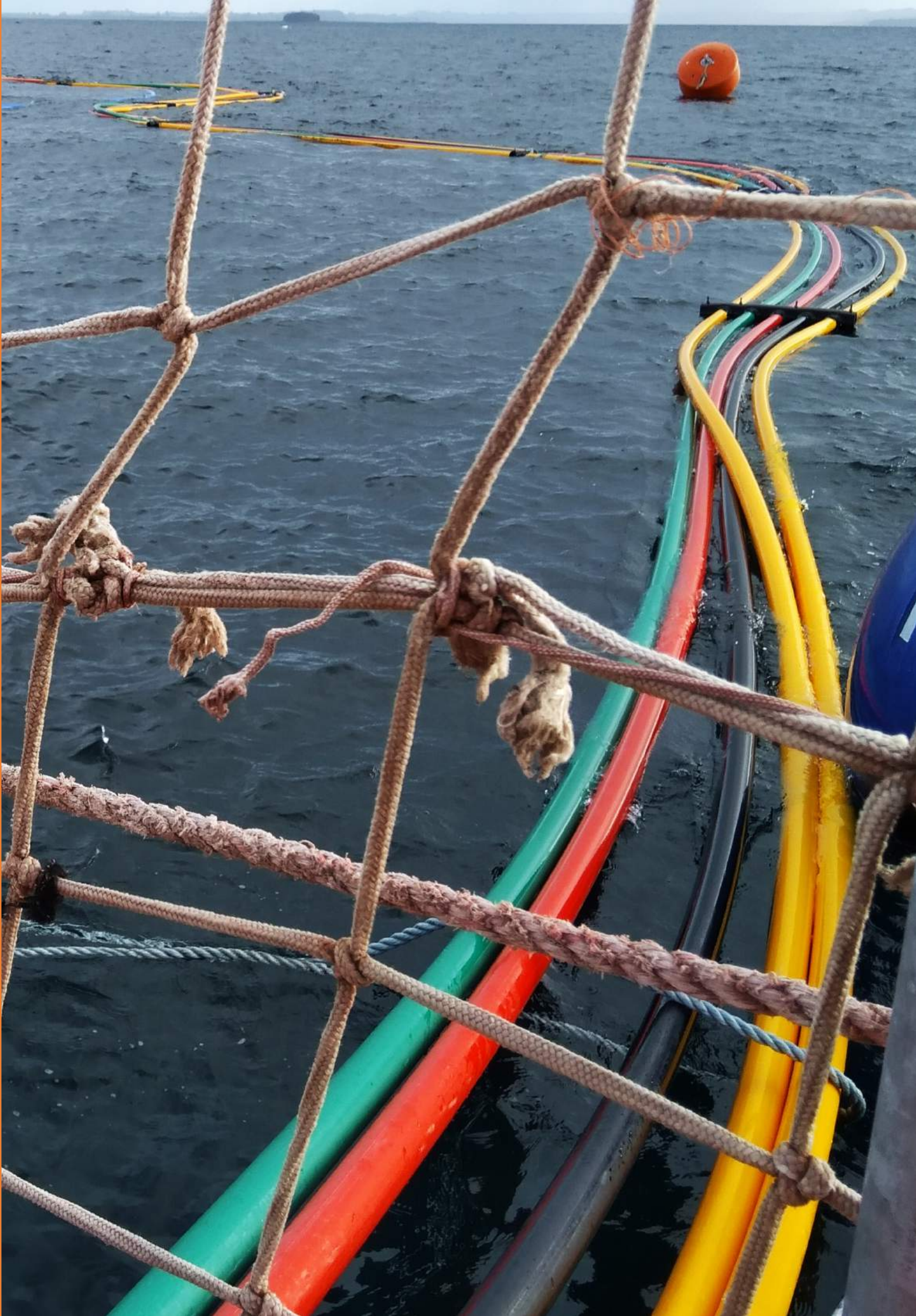


Pipe		Maximum Length per Coil (m)
Outside Diameter (mm)	Class	
63 (2")	12	4500
63 (2")	15	4500
63 (2")	19	4500
63 (2")	24	4500
63 (2")	30	4500
75 (2,5")	10	N/A
75 (2,5")	12	3300
75 (2,5")	15	3300
75 (2,5")	19	3300
75 (2,5")	24	3300
75 (2,5")	30	3300
90 (3")	10	N/A
90 (3")	12	2000

Pipe		Maximum Length per Coil (m)
Outside Diameter (mm)	Class	
90 (3")	15	2000
90 (3")	19	2000
90 (3")	24	2000
90 (3")	30	2000
110 (4")	12	1300
110 (4")	15	1300
110 (4")	19	1300
110 (4")	24	1300
110 (4")	30	1300
125 (4")	12	1000
125 (4")	15	1150
125 (4")	19	1150
125 (4")	24	1150
125 (4")	30	1150
140 (6")	12	760
140 (6")	15	800
140 (6")	19	870
140 (6")	24	870
140 (6")	30	870
160 (6")	12	500
160 (6")	15	600
160 (6")	19	600
160 (6")	24	600
160 (6")	30	600
180 (6")	12	380
180 (6")	15	450
180 (6")	19	500
180 (6")	24	500
180 (6")	30	500



Pipe		Maximum Length per Coil (m)
Outside Diameter (mm)	Class	
200 (8")	12	270
200 (8")	15	300
200 (8")	24	300
200 (8")	30	300
225 (8")	12	142
225 (8")	15	230
225 (8")	19	280
225 (8")	24	280
225 (8")	30	280
250 (10")	15	135
250 (10")	19	230
250 (10")	24	230
250 (10")	30	230
280 (10")	15	108
280 (10")	19	150
280 (10")	24	160
280 (10")	30	185
315 (12")	15	55
315 (12")	19	90
315 (12")	24	90
315 (12")	30	90
355 (14")	19	50
355 (14")	24	50
355 (14")	30	50
400 (16")	19	40
400 (16")	24	40
400 (16")	30	40
450 (18")	24	34
450 (18")	30	34





## About Pexgol

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Pexgol, a division of Golan Plastic Products, is the only worldwide manufacturer that specializes in large diameter, cross-linked polyethylene pipe systems, providing them to Industrial, Oil & Gas, Infrastructure, Aquaculture and Mining sectors throughout the world.

## Pexgol Material: PE-Xa

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Is a chemically unbreakable cross-connection between polyethylene chains. The result of this chemical reaction is the creation of a material which has extremely high structural integrity, combined with resistance to a wide variety of corrosive and weather conditions.



### GOLAN PLASTIC PRODUCTS

Kibbutz Shaar HaGolan 15145, Israel

+972 77 902 1000

[contact@pexgol.com](mailto:contact@pexgol.com)

[Pexgol.com](http://Pexgol.com)