



Aquaculture Piping Solutions



Pexgol: Advanced PE-Xa Pipes

At Pexgol, a premier offering of Golan, we stand at the forefront of heavy-duty PE-Xa pipe technology. Our pipes are meticulously crafted from an advanced high-density polyethylene, characterized by its remarkably high molecular weight. This intricate production process involves subjecting the raw material to intense temperatures and pressures during extrusion. This critical phase allows the material to undergo a crosslinking process, resulting in a robust and unbreakable chemical bond between the polyethylene chains.

The hallmark of Pexgol pipes lies in their cross-linked polyethylene composition, which combines a distinctive and versatile design with superior functionality. This innovative system makes Pexgol pipes an ideal choice for the transportation of a diverse array of substances, particularly those requiring exceptional chemical and mechanical resistance. Designed to tackle the unique challenges of the aquaculture industry, Pexgol pipes deliver unmatched durability and reliability, setting new standards in aquatic pipeline solutions.



Pexgol Aqua: Versatility in Every Dimension

Pexgol Aqua is not just a pipe; it's a versatile solution designed to meet the diverse and dynamic needs of aquaculture. The range spans diameters from a nimble 20 mm to a robust 710 mm, ensuring optimal performance across various stages of the breeding process.

Customized Solutions for Diverse Aquaculture Needs

Understanding the unique challenges of the aquaculture industry, we offer Pexgol Aqua in three distinct variants, each tailored to cater to specific requirements:

- **Antistatic Pipes:** Engineered to reduce static build-up, these pipes range from $10^{(-6)}$ to $10^{(-10)}$ ohm/square, offering an added layer of safety and functionality in sensitive aquatic environments. Available up to 160 mm.
- **Conductive Piping:** With resistance up to $10^{(-5)}$ ohm/square, these pipes are ideal for applications requiring controlled conductivity, ensuring safety and reliability in specialized aquaculture setups. Available up to 160 mm.
- **Regular Pipes with UV Resistance:** These pipes are fortified with enhanced resistance to UV radiation, making them perfect for outdoor and exposed applications, ensuring longevity and performance even under the relentless sun. Available between 20 mm to 710 mm.

Pexgol Aqua pipe is not just a conduit but a critical component in the success of modern aquaculture operations. They are not only robust and efficient but also environmentally friendly, aligning with the sustainable goals of the industry.

The Choice for Tomorrow's Aquaculture

With Pexgol Aqua, aquaculture practitioners can look forward to a future where efficiency, resilience, and safety are not just aspirations but everyday realities.

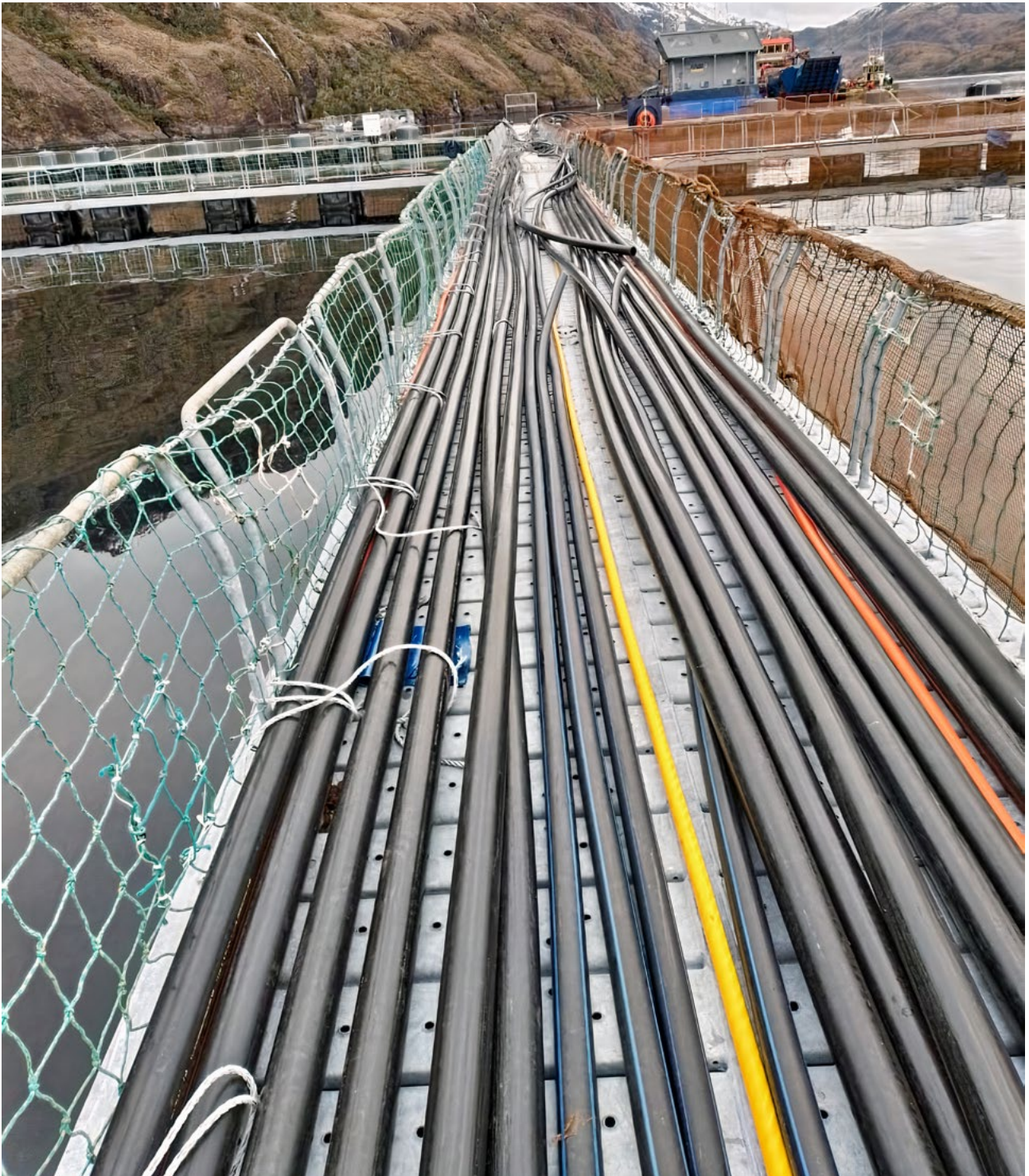
Unrivaled Advantages for Aquaculture

Pexgol Aqua pipes bring a suite of unmatched benefits to the forefront of aquaculture, combining advanced technology with practical functionality:

- 01 Enhanced Abrasion Resistance:** Pexgol Aqua pipes exhibit 3 to 5 times higher wear resistance than conventional HDPE, effectively countering abrasion caused by pellets.
- 02 Extended Lifespan with Minimal Maintenance:** Designed for durability, these pipes significantly reduce the need for maintenance over multiple cycles, allowing for uninterrupted focus on fish feeding rather than pipe repair.
- 03 Efficient Feed Particle Management:** Pexgol Aqua pipes are adept at reducing both small and large feed particle volumes, thereby enhancing feeding efficiency.
- 04 Optimized Internal Surface for Feed Preservation:**
 - **Hazen-Williams Coefficient:** Pexgol Aqua stands at 155 compared to HDPE's 150, ensuring smoother feed transport.
 - **Absolute Roughness:** Pexgol Aqua's 0.0006 rating significantly surpasses HDPE's 0.0015, boasting 60% less roughness, which minimizes food breakage during transit.
- 05 Exceptional Resistance to Wave Movements:** Their robust construction offers superior resistance to the dynamic movements and pressures of aquatic environments.
- 06 Unobstructed Feed Flow:** The pipe's design ensures seamless movement of feed, preventing blockages within the pipeline.
- 07 Extraordinary Mechanical Resistance:** The cross-linking process endows Pexgol Aqua pipes with remarkable mechanical strength, making them resistant to fatigue and breakage in demanding conditions, unlike conventional HDPE pipes.
- 08 Resilience Under Pressure:** The pipes' ability to "relax" allows them to withstand and recover from external pressures without sustaining damage.

09 Resistance to Slow Crack Growth: The unique composition of Pexgol Aqua pipes offers excellent resistance to tension, preventing slow crack growth due to their mechanical and thermal memory.

10 Longer Lengths in Coils: Pexgol Aqua pipes are more flexible and easier to handle than HDPE. They are available in extended lengths (up to 500 meters in 90 mm diameter) with fewer or no electrofusion joints needed, in contrast to the typical 100-meter maximum length of HDPE pipes.



Sustainability with Pexgol Aqua

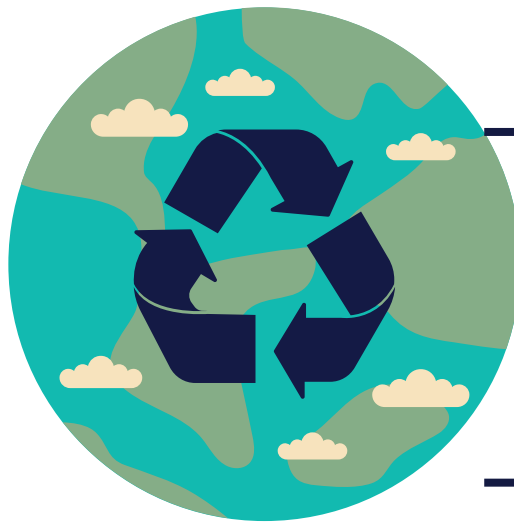
Pexgol Aqua pipes play a pivotal role in promoting sustainable practices in the aquaculture industry. The innovative design and superior durability of these pipes align with the principles of the circular economy, reducing environmental impact significantly.

Reduced Microplastic Emission

Pexgol Aqua pipes, have a substantially lower wear rate than HDPE pipes. This reduced wear means significantly fewer microplastics are released into aquatic environments, thus mitigating the microplastic pollution problem prevalent in aquaculture.

Sustainable Material Choice

Durability means a longer operational life, reducing the need for frequent replacements and thereby decreasing the overall contribution of microplastics.



Efficient Reuse in Aquaculture

Pexgol Aqua pipes are efficiently reused across multiple feeding cycles in aquaculture farms. Their durability minimizes the need for frequent replacement, supporting sustainability and economic efficiency in aquaculture.

Advancing Circular Economy Principles

The longevity and reduced wear of Pexgol pipes align with the principles of circular economy, emphasizing resource efficiency and waste reduction.



Enhanced Environmental Protection

By lowering the emission of microplastics, Pexgol pipes help protect marine life and maintain the ecological balance of oceans.

Supporting Eco-Friendly Aquaculture Practices

The transition to Pexgol pipes in aquaculture is a step towards more environmentally responsible practices, helping to create a sustainable future for the industry.

Fittings & Accessories

We offer a full piping solution that includes all kinds of fittings and accessories to provide an 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 reinforced electrofusion couplers "series 1" (up to 70°C) and "series 2" (up to 90°C) can be used according to temperature requirement.

Pexgol approves and supplies the following fittings systems and installation tools: Plasson, 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.



Transportation

Pexgol Aqua pipes are available in diameters from 63 mm (2") to 355 mm (14") and are available to be shipped in coils.

Pipe		Maximum Length per coil (m)	Maximum Length per coil (ft)
Outside diameter (mm + in)	Class		
63 (2")	12	4,500	14,760
63 (2")	15	4,500	14,760
63 (2")	19	4,500	14,760
63 (2")	24	4,500	14,760
63 (2")	30	4,500	14,760
75 (2,5")	10	NA	NA
75 (2,5")	12	3,300	10,824
75 (2,5")	15	3,300	10,824
75 (2,5")	19	3,300	10,824
75 (2,5")	24	3,300	10,824
75 (2,5")	30	3,300	10,824
90 (3")	10	NA	NA
90 (3")	12	2,000	6,560



Pipe		Maximum Length per coil (m)	Maximum Length per coil (ft)
Outside diameter (mm + in)	Class		
90 (3")	15	2,000	6,560
90 (3")	19	2,000	6,560
90 (3")	24	1,300	4,264
90 (3")	30	1,300	4,264
110 (4")	12	1,300	4,264
110 (4")	15	1,300	4,264
110 (4")	19	1,300	4,264
110 (4")	24	1,000	3,280
110 (4")	30	1,000	3,280
125 (4")	12	1,000	3,280
125 (4")	15	1,000	3,280
125 (4")	19	1,000	3,280
125 (4")	24	760	2,493
125 (4")	30	900	2,952
140 (6")	12	900	2,952
140 (6")	15	900	2,952
140 (6")	19	900	2,952
140 (6")	24	450	1,476
140 (6")	30	620	2,034
160 (6")	12	620	2,034
160 (6")	15	620	2,034
160 (6")	19	620	2,034
160 (6")	24	400	1,312
160 (6")	30	450	1,476
180 (6")	12	500	1,640
180 (6")	15	500	1,640
180 (6")	19	500	1,640
180 (6")	24	500	1,640
180 (6")	30	500	1,640

Pipe		Maximum Length per coil (m)	Maximum Length per coil (ft)
Outside diameter (mm + in)	Class		
200 (8")	12	270	886
200 (8")	15	350	1,148
200 (8")	24	350	1,148
200 (8")	30	350	1,148
225 (8")	12	176	577
225 (8")	15	245	804
225 (8")	19	245	804
225 (8")	24	300	984
225 (8")	30	300	984
250 (10")	15	150	492
250 (10")	19	200	656
250 (10")	24	250	820
250 (10")	30	230	754
280 (10")	15	125	410
280 (10")	19	170	558
280 (10")	24	170	558
280 (10")	30	170	558
315 (12")	15	65 (with core)	213 (with core)
315 (12")	19	100	328
315 (12")	24	150	492
315 (12")	30	150	492
355 (14")	19	57 (with core)	187 (with core)
355 (14")	24	100	328
355 (14")	30	100	328





Pexgol | Golan Plastic Products Ltd.
Kibbutz Shaar HaGolan, 1514500, Israel
T. +972-77-9021040
F. +972-77-9021010
contact@pexgol.com
www.pexgol.com



ArgPex
Auxiliar Ruta 40, Lote 2 Parque Industrial
Las Heras (5543)
Las Heras, Mendoza, Argentina
info@argpex.com
www.argpex.com



Crosspipe Systems
Av. Héctor Gómez Cobo N°910,
Sector La Negra, Antofagasta
Chile
contacto@crosspipe.cl
www.crosspipe.cl



Golan Pipes Scandinavia
Lollandsvej 16 - DK-5500
Middelfart, Denmark
info@golan.dk
www.golan.dk



Quickpipes Systems
Paseo de los Industriales Poniente 306
Parque Industrial Silao FIPASI
36100, Silao de la Victoria
Guanajuato, México
contacto@quickpipes.com.mx
www.quickpipes.com.mx



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Pexgol PE-Xa Pipes

Pexgol PE-Xa cross-linked polyethylene line pipe has many features that make it an excellent, cost-effective alternative to other pipe materials:

- Excellent chemical and corrosion resistance (chemical agents, slurries, toxic materials, radioactive materials).
- Reduced installation costs with long-length coils/spools.
- Improved flow capacity due to smooth interior surface.
- High resistance to abrasion and UV exposure.
- Wide working temperature range.