



Copper Alloy Wire and Net for Cage Farming Aquaculture

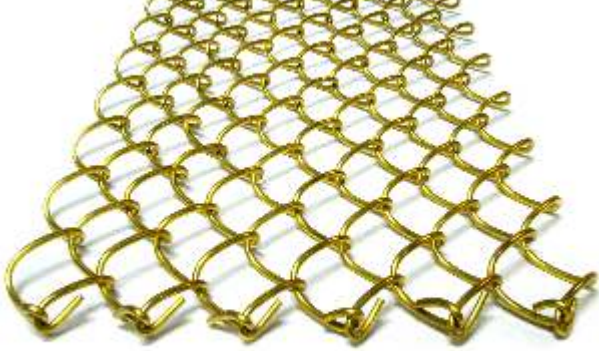


Fitco S.A was established in 1978 and has since been actively involved in the processing of copper alloy products. It is a subsidiary of Halcor S.A, one of the leading European copper processing companies. Halcor Group represents the copper segment of Viohalco S.A., a Belgium-based holding company of leading metal processing companies across Europe.

Fitco is active in more than 30 countries through an international network of subsidiaries, agents and distributors. It is certified according to ISO 9001:2008 and is committed to promoting technological development and environmental protection. It also has an Environmental Management System and a Health and Safety System certified according to ISO 14001:2004 and OHSAS 18001:2007, respectively.

Antimicrobial
Copper





Copper Alloy wire for Aquaculture Applications

Fitco produces the UR30® Copper Alloy Wire, specifically engineered for aquaculture applications.

This special copper alloy wire is subsequently woven into chain link fence mesh by special formation machinery.

Nets made from this wire have been shown to provide a service life of more than 10 years.

The UR30® wire has unique properties.

1

It is an environmentally friendly and fully recyclable material with high strength and durability.

2

Its anti-fouling, anti-microbial and anti-corrosion properties make it an ideal choice for a wide range of applications for the aquaculture industry.

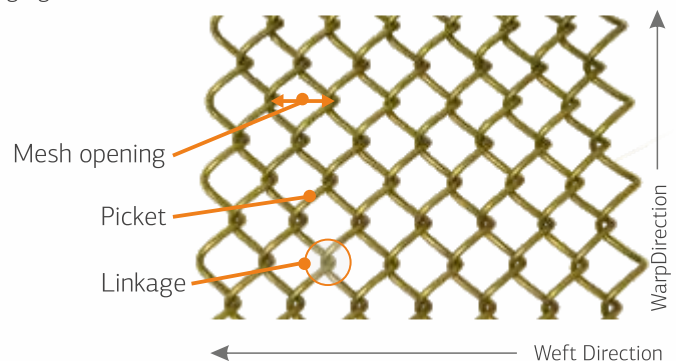
3

Popular uses can be found in aquaculture cages, weirs and barriers, fish traps etc.



Technical description

To manufacture this special wire, a copper alloy is used consisting mainly of copper, zinc and tin. The UR30® wire, of a diameter ranging between 2mm and 6mm, is formed into a net by special formation process. The net consists of square openings with square side lengths ranging between 18mm and 100mm.



UR30® Copper Alloy wire

- Very strong
- Highly durable
- Anti-microbial
- Anti-fouling
- Corrosion Resistant
- Wear Resistant
- Environmentally friendly
- Fully recyclable

Alloy UR30ST-W (C45470W) Specifications

Chemical Composition

Alloy	Cu	Sn	Al	Zn
UR30®	66.0	0.6	0.6	Rem.
<i>Micro-elements excluded</i>				

Mechanical Properties

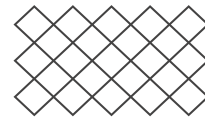
Alloy	Products	Size	Temper	Hardness (HRB)	T/S (N/mm ²)	E/L (%)
UR30®	Wire	e.g. 4.0 mm	1/8 H	54	440	22

Copper Alloy net improves the aquaculture conditions, productivity and sustainability for the farming of a wide variety of fish species (i.e. salmon, trout, sea bream, sea bass etc.) Due to its natural properties, UR30® net presents an ideal solution for both surface and submersible marine aquaculture colonies for near and offshore sites.



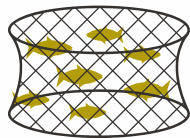
Improves fish health and welfare

Copper naturally inhibits biofouling, enabling better water flow circulation and higher dissolved oxygen levels, reducing pen fouling and decreasing the number of parasites, disease organisms and the use of antibiotics. This leads to increased growth and development, lower mortality rates and improved feed conversion.



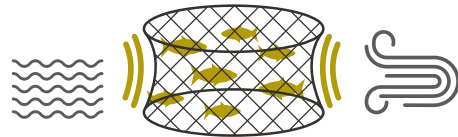
Reduces maintenance

Copper alloy net does not need to be frequently inspected for repair works or removed and cleaned to dispose of biofouling that grows on traditional net pens. This ensures decreased fish stress and lowers the overall costs associated with maintenance.



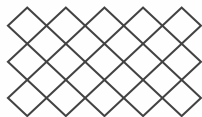
Prohibits predation and prevents escapes

The high-strength copper alloy net deters predator attacks and eliminates escapes of farmed fish, decreasing the direct economic cost to fish farmers and preventing the ecological impact of any interbreeding with wild fish stocks.



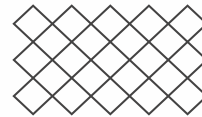
Maintains cage volumes

Copper alloy net provides higher structural stability and robustness under extreme weather conditions. Maintaining its shape and internal volume against strong waves and currents, it prevents fish crowding and helps maintain high oxygenation that ultimately improves yields.



Fully recyclable after a long life

The Copper alloy net offers extended cage life, lasting a minimum of 10 years or more regardless of its installed environment. Furthermore, it loses little mass over time and is fully recyclable. After its service life, the net is returned and is recycled for the production of a new replacement.



Environmentally friendly

Copper alloy net achieves substantial improvements in environmental performance because it does not require antifouling coatings and the netting material can be recycled into new nets. Furthermore, due to its minimal corrosive metal release to the surrounding water environment, copper is not bioavailable.



“Unlocking the future of fish farming”

Copper Alloy net



Environmental benefits of copper alloy net



Preserves
the marine environment

Respects
biodiversity

Reduces

- > Feed Inputs
- > material and energy inputs on-site
- > waste and material sent to landfill

Fully recyclable

Delivering Benefits to Fish Farmers

- ◇ **SGR:** 15% increase
- ◇ **Predator attacks:** down to < 0.1 %
- ◇ **Labour hours/tonne:** 79% reduction
- ◇ **On-site energy use:** 15% reduction
- ◇ **Mortality:** less than 4%
- ◇ **FCR:** 15% improvement
- ◇ **Feed use:** 10% reduction
- ◇ **Antibiotics:** 31% reduction



www.fitco.gr

Sales Department

59th km Athens-Lamia National Road
320 11 Oinofyta, Viotia, Greece
Tel.: +30 22620 53126/53144
Fax: +30 22620 53139
e-mail: sales@fitco.vionet.gr

