

## Buoys Comparative Analysis

### General Description

Our Light Buoys are made of high density polyethylene (LLDPE) and are filled with special styrofoam (EPS).

Application of the rotational molding manufacturing method makes our buoys not only environmentally friendly, but also strong and lightweight with sophisticated body protection from hazardous effects of oil, gas, marine organisms, salt and fresh water and exposure to ultraviolet rays.

### General information

Materials: All buoys are manufactured using extruded polyethylene with a rotationally molded external shell. The inside is filled with freon-free polystyrene;

Wall thickness: from 5 mm to 18 mm;

Height: from 3000 mm to 7000 mm;

Diameter: from 160 mm to 1000 mm;

Weight: from 40 kg to 250 kg (depending on the model);

Ballast: from 22 kg to 200 kg;

Anchor: from 200 kg to 2000 kg (please refer to .....).

Equipment:

Light Reflector: standard for all models

Radar Reflector: standard for all models

Life Cycle: up to 10 years

Warranty: 2 years

Certificates:

Quality Certificate: ISO 9001:2000.

Accreditation: all products are officially licensed by the Ministry of Defense and Ministry of Transport of the Russian Federation

Optional Equipment:

LED Lantern GOTTA NVL-M

Distant Monitoring System

## Buoys Comparative Analysis

	<b>Polyethylene Buoys</b>	<b>Metal Buoys BMSL-88M</b>
<b>DIMENSIONS</b>		
Production material	Polyethylene	Metal
Body composition	One piece construction	One piece construction
Height	From 3000mm to 7000mm	From 1600mm to 6700mm
Diameter	From 160mm to 1000mm	Up to 1600mm
Wall thickness	From 5mm to 18mm	Up to 5mm
Weight	From 40kg to 250kg	2300kg
Anchor chain diameter	19mm	28mm
Anchor weight	From 200kg to 1000kg	Up to 2500kg
Height of lantern	3500mm	3500mm
Gotta Port Services Ltd. Lootsi 11 10151, Tallinn Estonia	Reg. no. 11167476 VAT no. EE101008435 Swedbank account: EE082200221029250063	Tel: (+372) 646 06 50 Fax: (+372) 646 06 51 E-mail: <a href="mailto:office@gotta.ee">office@gotta.ee</a>

**Gotta.ee**

Gotta port services

<http://www.gotta.ee>

Minimum draft	2500mm	3300mm
<b>APPLICATION</b>		
Application in deep waters	Up to 50 meters	Up to 50 meters
Application in shallow waters	From 3 meters	From 5 meters
Application in currents	Up to 6 knots	Up to 6 knots
Application in ice conditions	Ice thickness up to 1 meter	Ice thickness up to 1 meter
<b>EXTERNAL ENVIRONMENT</b>		
Resistance to corrosion	Eternal resistance to salt and fresh water	Needs regular maintainance
Resistance to ultraviolet	Eternal protection from UV	Fading of colour
Resistance to oil corrosion	Eternal resistance to oil	Not protected from oil corrosion
Regularity of dye	Never	Annually
In case of damaged body	Stays floating on water	Stays floating on water
<b>LIFECYCLE AND CARE</b>		
Lifecycle	Up to 10 years	Up to 10 years
Resources for Service, Maintainance and Transport	Vessel with crane lifting capacity of 1 tonn	Vessel with crane lifting capacity of 3 tonns
<b>SOCIAL RESPONSIBILITY</b>		
CO2 emission during production	Minimal	High emission of CO2

Our polyethylene buoys are distinguished by their low weight, high density hence strength of the body and long lasting period of exploitation without having to replace due to corrosion or fading of color.

In comparison with metal buoys the polyethylene buoys do not require regular maintainance. The general checking of the buoys is carried out once in 3-5 years to control the state of the anchor chain; other things being equal the polyethylene buoy is not effected by hazardous weather conditions or salt water corrosion.