



BPA REKVIAS AS 10.2010

# The Professionals Choice since 1955

**Polyfom** buoys and fenders are produced by **Provinor AS**, a leading manufacturer in its field. The company is situated in Ålesund on the west coast of Norway, and benefits from being located in one of the world's most innovative maritime environment.

The product range consists of:

- Inflatable buoys and fenders made from soft Vinyl plastics
- Purse Seine Floats, buoys and marina fenders made from **BACELL**® closed cell foam
- Extra large hard-shell buoys and pontoon floats made from PE and filled with foam

A number of different production methods are being used and combined with the utilization of different materials, several of which are in-house developed and patented.

- Rotational molding
- Blow molding
- Injection molding
- Extrusion
- Expansion of closed cell foam

In addition to the extensive range of standard products, Provinor AS can also offer custom-made solutions and private-label products.



**provinor**

**Provinor AS**, Tverrvegen 37, N-6020 Ålesund, Norway  
 Tel.: (+47) 70 17 25 50 - Fax: (+47) 70 14 76 36 - e-mail: mail@provinor.no  
 www.provinor.no



**provinor**

# High Quality Products from the Originator of the Modern Plastic Buoy



**POLYFORM™**, established in Ålesund, Norway in the year of **1955**, was the first company in the world to produce inflatable, rotomolded soft Vinyl buoys. The product was an instant success and was immediately accepted in the domestic as well as overseas markets. Ever since, our company has been committed to further expand the range and to further develop, customize and improve the individual products. The first major leap forward happened in the **1970's** and partly into the **1980's**, when specially designed, in-house constructed

machinery for rotomolding of our buoys and fenders was developed and put into use. Such type of machinery was unique in the world of molding buoys and fenders. More recent developments took place in **the new millennium**, by our designing and constructing of the first ever fully automated and robot assisted production machinery, built for molding of inflatable fenders. This groundbreaking development is based on and incorporates our latest patented production technology: **POLYMATIQ®**. At the same time, we developed and implemented our **WELCOTEC™** molding techno-

logy for inflatable buoys. These specific technologies, combined with the **POLYMATIQ®** machinery, still stand unrivalled. We want **POLYFORM™** - also for the time to come - to represent the very best within the fields of design, production technology and product quality for pneumatic buoys, floats and fenders. **POLYFORM™** products are regularly exported to well over 60 countries. We offer a world-wide service through our extensive national and international distribution network.

1955



# A SERIES

## All purpose Buoys and Fenders



Welcotec

**A-series** buoys / fenders are available in 8 different sizes and all, from the smallest to the largest size buoys are specially made stand up to the demanding use in

- Commercial Fishing
- Aquaculture
- General marking and flotation applications
- Protection of vessels (up to max 1500 ton d/w)
- Protection of larger recreational yachts
- Different multi-purpose applications

Specially designed and produced by use of **Provinor's™** in-house **Welcotec™** molding technology ensuring controlled wall thickness and reliable product quality.

Combined with the dark blue, multiple rib-reinforced and extra solid ropeholds, the A-series buoys have become synonymous with **"the best buoy money can buy"**.

Standard colors ○ ● ●

Art.No.	Buoyancy kg*	Lenght mm	Diameter mm	Eye diameter mm	Weight kg
A1	13,0 / 7,8	380	295	22	1,15
A2	32,0 / 19,2	500	390	25	2,10
A3	52,0 / 31,2	575	460	28	3,10
A4	90,0 / 54,0	710	550	28	4,10
A5	215,0 / 129,0	940	710	28	8,30
A6	405,0 / 243,0	1120	850	35	11,30
A7	670,0 / 402,0	1420	1100	60	21,00

\*Gross Buoyancy / Recommended maximum Load



Fishermen often refer to a buoy's circumference in inches when describing the size of the buoy. The reference to inches shown here must be seen as an approximate guidance and should not be taken as accurate measurements. For exact measurements, see the table above.

# F SERIES

## Heavy duty Fenders



polymatiq ROTOMOULDING

**F-series** cylindrical fenders are offered in as many as 12 different sizes to fit vessels ranging from the smallest dinghy up to larger yacht and even commercial ship's and Navy vessels.

**F-series** cylindrical fenders are made by our unique, in-house developed and patented **POLYMATIQ®** technology that ensures supreme control over the fusion process and warrants for the most consistent quality available anywhere for such molded, soft Vinyl fenders.

Highest breaking strength is taken care of by the two dark blue, multiple rib-reinforced rock solid ropeholds.

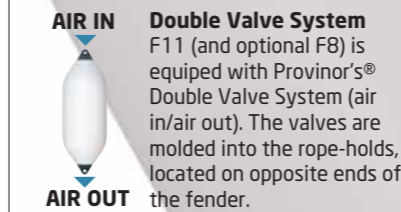
Tested for strength and flexibility in temperatures ranging from -30° C to +60° C, these

most heavy duty fenders feature high abrasive resistance and high energy absorption (up to 3.8 ton meter for F-13), making them suitable for ships of up to 1500 ton d/w (F-13).

In addition to be a "must" for recreational crafts and yachts, the F-series cylindrical fenders are widely used by

- National navies
- Coast guard vessels
- Pilot boats
- Commercial ships
- "ALMOST ANY KIND OF BOATS AFLOAT"

Standard colors ○ ●

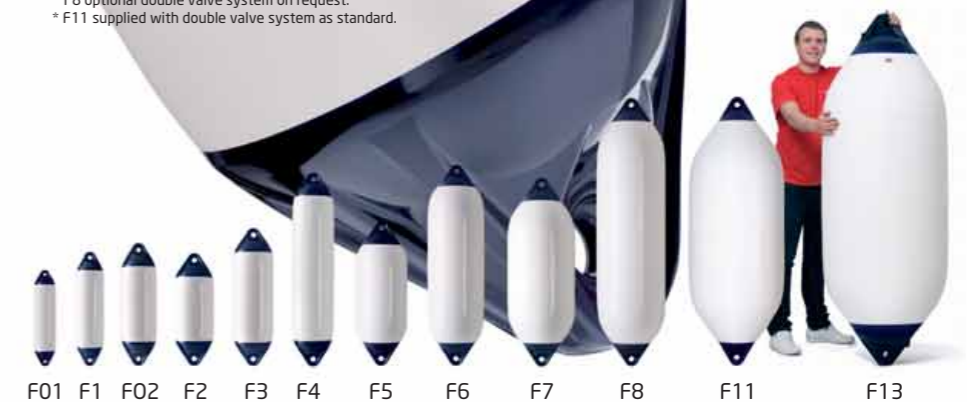


Appreciated by dedicated yachtsmen for its superb strength, design and finish



Art.No.	Volume liter	Lenght mm	Diameter mm	Eye diameter mm	Weight kg
F01	5,3	560	130	18	0,75
F1	8	610	150	22	1,00
F02	15	660	200	25	1,65
F2	16	610	220	28	1,75
F3	22	745	220	28	2,10
F4	35	1040	220	28	2,90
F5	35	775	290	28	3,00
F6	60	1090	290	28	4,20
F7	85	1020	375	28	5,30
F8*	135	1440	375	28	7,60
F11*	275	1455	590	28	10,50
F13	700	1880	750	40	23,00

\* F8 optional double valve system on request.  
\* F11 supplied with double valve system as standard.



# G SERIES

## Blow molded utility Fenders



Quality budget fenders



The **POLYFORM® G-fenders** are blow molded from marine-grade Vinyl material. Intended to be used for typically light-weight utility fenders - but still designed with re-enforcing ribs along the length of the fender body - to assure added strength and abrasion resistance. These fenders are fitted with the full-size **POLYFORM® V-10** all-plastic valve and securing valve screw.

The **G-fenders** are suitable for smaller and medium size pleasure crafts. (Please refer to our Fender-Guide).

Standard colors

Art.No.	Lenght mm	Diameter mm	Eye diameter mm	Weight kg
G2	407	117	13	0,5
G3	515	145	16	0,8
G4	585	170	20	1,1
G5	705	215	22	1,5

# HL SERIES

## High-Liner

Drag reducing buoys specifically designed for harsh conditions



Welcotec

Cylindrical, 'bullet-shaped' **POLYFORM® HL-buoys** are specially designed to reduce drag when used under conditions with strong currents. Under some conditions, the HL-buoys can considerably reduce the drag when compared to spherical buoys.

Designed with the original **POLYFORM®** blue-top ropehold, the **HL-buoys** are heavy-duty buoys, used by commercial fishermen in offshore environments.

Standard colors

Art.No.	Buoyancy kg*	Lenght mm	Diameter mm	Eye diameter mm	Weight kg
HL2	32,0 / 19,5	600	300	35	2,3
HL3	48,0 / 29,0	675	360	35	3,0

\*Gross Buoyancy / Recommended maximum Load

# HD

Big Buoy

## Heavy duty Fender

Strong, durable air-filled fender for commercial crafts. Produced in one piece with extra reinforced ropeholds. The HD265 fender is roto-molded from a strong, 8 mm thick, semi-soft thermo-plastic material.

Standard color

Covered by the trademark **BigBuoy**, Provinor AS manufactures a wide range of products that are roto-molded from Polyethylene plastics (PE). The **BigBuoy** range of products consists not only of buoys for mooring but included is also a significant range of different size and design pontoon floats, tanks and containers. Feel free to also contact us for **Customer tailored products!**

Art.No.	Volume liter	Lenght mm	Diameter mm	Eye diameter mm	Weight kg
HD265	265	1440	650	50	20,00

# Pe3

## Marker Buoys

Hard-plastic, ready inflated and sealed marker buoys.

Standard colors

Art.No.	Buoyancy kg	Lenght mm	Diameter mm	Eye diameter mm	Weight kg
Pe3	1,6 / 1,0	208	150	10 / 12	0,11

\*Gross Buoyancy / Recommended maximum Load

# CC SERIES

## Multi-purpose Buoys

Seamless construction, tough PVC material, all weather resistant



Welcotec

Commonly known as "Dhan-Buoys" or "High-Fliers". These buoys are fitted with a central, flexible tube for mounting of for example a pole. The **CC-series** Multi-purpose buoys are of seamless molded construction and are widely used for various marking applications.

Standard colors ○ ● ●

Art.No.	Buoyancy kg*	Length mm	Diameter mm	Tube diameter mm	Weight kg
CC2	29,0 / 17,5	430	385	48	2,6
CC3	55,0 / 33,0	500	450	48	3,9
CC4	100,0 / 60,0	590	540	48	5,3

\*Gross Buoyancy / Recommended maximum Load

**VERY IMPORTANT:** These buoys are designed for surface use only, not for use under water. As these buoys are permanently exposed to the environment, maintaining correct inflation measurements are of highest importance for the quality and lifespan of the products.

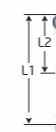
# MB SERIES

BigBuoys

## Non-inflatable PE Mooring Buoys

**MB-series** buoys are roto-molded from Polyethylene (PE) and filled with Polystyrene foam (EPS). **MB-series** buoys are widely used for various kinds of moorings - but also for marking of fishing gear, for fish farms, cables, pipelines and many different other surface installations. The buoys come complete with hot dipped galvanized armature and swivel. Buoys for mooring are usually filled with Polystyrene foam (EPS) and may alternatively - for special applications - be offered filled with Polyurethane foam (PUR). For detailed info on the complete range of **BigBuoys**, please ask for the special catalogue or log in to our web page: [www.bigbuoys.no](http://www.bigbuoys.no).

Standard colors ● ● ●

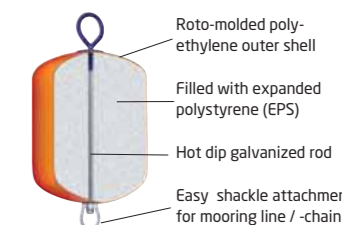


Art.No.	Rod diameter mm	L1 mm	L2 mm	Diameter mm	Buoyancy kg*
MB40	16	640	150	380	45.0 / 25.0
MB100	19	855	170	500	106.0 / 65.0
MB250	19	1190	170	650	255.0 / 160.0
MB40L	16	1065	575	380	45.0 / 25.0
MB100L	19	1485	800	500	106.0 / 65.0
MB250L	19	1820	800	650	255.0 / 160.0

\*Total gross volume of buoys and Recommended Maximum Load for the buoy. Do not exceed the Recommended Maximum Load

Covered by the trademark **BigBuoys**. Provinor AS manufactures a wide range of products that are roto-molded from Polyethylene plastics (PE) and filled with either EPS or alternatively PUR foam. The **BigBuoys** range of products consists mainly of buoys for mooring but included is also a significant range of different size and design pontoon floats, tanks and containers.

Feel free to also contact us for **Customer tailored products!**



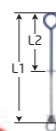
**VERY IMPORTANT** Please observe that stainless-steel parts, like swivel devices, hooks or chain should never be mixed with the hot dipped galvanized material of the mooring rods. Use hot dipped galvanized parts / chain or rope only. The mooring, especially the under-water parts have to be inspected for wear and tear twice a year!

# CCE CCD SERIES

## Inflatable Mooring Buoys

The **POLYFORM®** inflatable mooring buoys are offered with either a short mooring rod (**CCE**-type mooring buoy) or a long mooring rod (**CCD**-type mooring buoy). The mooring buoys are fully assembled by the factory and only need correct inflation before use. The rods include a swivel at the lower end and all parts are hot dipped galvanized.

Standard colors ○ ●



Art.No.	Rod diameter mm	L1 mm	L2 mm	Buoyancy kg*
CCE2	16	640	150	28.0 / 16.5
CCE3	19	740	150	53.0 / 31.5
CCE4	19	855	170	98.0 / 58.0
CCD2	16	1065	575	27.0 / 16.0
CCD3	19	1190	600	52.0 / 31.0
CCD4	19	1485	800	97.0 / 57.0

\*Total gross volume of buoys and Recommended Maximum Load for the buoy. Do not exceed the Recommended Maximum Load

# MR MG SERIES

## Non-inflatable Bacell™ Mooring Buoys

**MR30, MR40** (with short iron rods) and **MG40** (with long iron rod) are manufactured from **BACELL™**, Provinor's special foam material with 100% closed cells. The material is an in-house composition, consisting of environmentally friendly **EVA**. The closed-cell structure prevents any water from entering into the material and makes these buoys totally puncture proof. **MR- and MG-series** mooring buoys are fitted with a hot dipped galvanized mooring rod and swivel.

Color available MR30 ● Colors available MR40 and MG40 ○ ● ●



Art.No.	Rod diameter mm	L1 mm	L2 mm	Diameter mm	Buoyancy kg*
MR30	12	385	140	250	9,8 / 4,0
MR40	16	600	140	285	14,0 / 8,0
MG40	16	890	410	285	13,5 / 7,5

\*Total gross volume of buoys and Recommended Maximum Load for the buoy. Do not exceed the Recommended Maximum Load

**PLEASE NOTICE: APPLIES TO ALL MOORING BUOYS**

Please refer to the "Mooring Description" found in the additional information on page 11 in this brochure. You'll also find a "Mounting Description" supplied with each Mooring Buoy and/or you can obtain information and instructions from our web-sites [www.polyform.no](http://www.polyform.no) - [www.bigbuoys.no](http://www.bigbuoys.no) - [www.provinor.no](http://www.provinor.no)  
Please note that mooring buoys are designed for use on the surface, they are not designed for

use under water. (Exception: special made, PUR-filled MB-type BigBuoys™, please contact Provinor AS for details!)  
In case of any doubt regarding products and/or use of products, contact Provinor AS for guidance. Due to many variables out of Provinor AS' control, the customer has the final and full responsibility to determine product suitability for his application.

## Bacell™ Dock ending Products



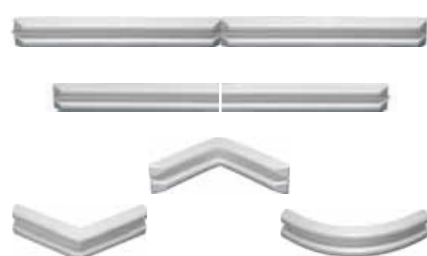
**Marina Fenders** are produced from **BACELL**, a shock absorbing and 100% closed cell foam material that cannot puncture and will never take up any water. The BACELL® material does not shrink and is very resistant to permanent deformation, in addition to being resistant to UV light and all weather conditions. Made from environmentally friendly EVA.

Standard colors   On special request:

Art.No.	Length mm	Height mm	Depth mm
<b>MF44</b>	940	85	44
<b>MF60</b>	1000	140	60
<b>MBF150</b>	650	200	130



The MBF150 Marina Bumper, MF44 and MF60 Marina Fender lists are delivered plastic-wrapped with fittings and mounting instructions enclosed.



The Polyform Marina Fenders can easily be formed to cover corners and bends.



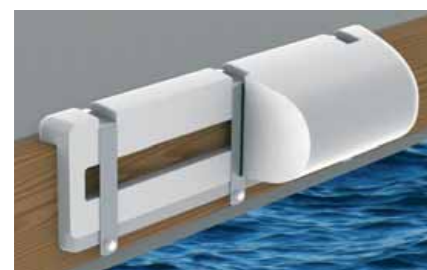
MF44 gray

The **MF44 Marina Fender** is our smallest dock fender list for boat protection. It's easily attached to most docks by use of mounting brackets (included) and 4 appropriate screws. Can be formed to cover corners and bends. Will not deteriorate in the sun, will not mark your boat.



MF60 white

The **MF60 Marina Fender** is the ideal protection - mounts easily to most docks by use of mounting brackets (included) and 4 appropriate screws. Can be formed to cover corners and bends. Will not deteriorate in the sun, will not mark your boat.



The new improved version of MBF150 Marina Bumper with reinforced mounting bracket system as shown in this schematic representation.



MBF150 white

The **MBF150 Marina Bumper** The most heavy-duty type of Marina Fender, designed for maximum protection of the bow / stern when mooring and during boarding. Delivered with mounting brackets.

## Important information about our products

### Inflatable soft Vinyl products

All **POLYFORM**® inflatable products are produced either by means of rotational molding or by blow molding from only the best, marine-grade Vinyl materials. The Vinyl materials are **POLYFORM**® special in-house compositions, developed and refined over a period of more than 50 years and ensure our highest degree of product reliability. The Vinyl materials are highly resistant to wear and tear, through-colored, UV- stabilized and possess just the right flexibility and resistance for their specific jobs.

### Inflation

A correct inflation is of great importance in order to get the best out of the products and also to ensure the longest possible lifespan for the products. Over-inflation will lead to permanent deformation and irrevocably destroy the original properties of the products - and should thus be avoided! Our product sheets, information found in this brochure and in our WEB-sites ([www.polyform.no](http://www.polyform.no)) will more in detail inform about correct inflation measurements for each product.

### Valves

All **POLYFORM**® products are fitted with an all-plastic valve for easy inflation. Two different valves are used, the standard **V-10** valve that is used in the majority of our products and the larger **V-40** valve that is used in our largest products (F13, A6, A7).

The **V-10** valve is a non-return type of valve, fitted with a protective valve screw. For inflation, the screw has to be removed. Air is blown into the valve by either a suitable hand pump or by means of compressed air. After inflating the product to the correct diameter and length, the valve screw has to be set back in place in order to fully secure any loss of air from the valve! The **V-40** valve is designed for easy inflation and deflation of our largest products. This is not a non-return valve and is operated differently from the standard **V-10** valve: to inflate the product, open the valve by turning the valve screw anti clockwise 3-4 times - but DO NOT REMOVE the valve screw from the valve housing. Inflate through the center hole of the valve screw itself, preferably by means of compressed air. After inflating the product to the correct diameter and length, remove the compressed air hose/nozzle and quickly tighten the valve screw. This will close the valve against loss of air. (Some negligible loss of air will occur during the process). Please take care not to tighten the screw too hard as that would only deform the valve housing and might lead to air leaking from the valve! To deflate, just open the valve screw by turning it 4-5 times anti clockwise and again. Do not remove the valve screw from the valve housing.

### Finding the correct size and type of fender

Please refer to the **POLYFORM**® fender-guide to help finding the correct size and type of fender for a specific yacht/boat. Please keep in mind that this fender-guide is just a general guidance. There are many variables out of Provinor's control that may influence on the type, size and number of fenders to be chosen for a yacht/boat. Therefore, it is the responsibility of the end-user to determine product suitability for his particular application.

	A-series	F-series	G-series
-10'		F01	G2
11-16'	A1	F01 / F1	G2 / G3
17-23'	A1 / A2 / A3	F1 / F02 / F2	G3 / G4 / G5
24-30'	A3 / A4	F2 / F3 / F4	G5
31-45'	A4 / A5	F5 / F6	
46-60'	A5 / A6	F7 / F8	
60'-	A7	F11 / F13	

The HD265 Heave duty Fender (page 6) is recommended for crafts larger then 60'.

### Mooring Buoys

Only the lower swivel (under water) shall be used for mooring. The size of the buoy depends on the weight and the total load it will be exposed to. The dimension of the mooring iron bar and swivel should be chosen in accordance with the size and weight of the boat, weather conditions, the currents and wave height in the area the mooring is intended to be placed. The mooring buoy must not be expose to a load of more than 60% of its total buoyancy. Please also consider additional weight/load caused by marine growth, currents, wind and waves. For safety reasons, it is imperative to check the mooring for wear and tear at least twice a year.

### Marking of products

Vinyl products can be marked by use of a waterproof marker pen. Important: Some of our products, like the non-inflatable mooring buoys that are made from either **PE-** or **Bacell**™ foam material cannot be marked easily. Should you require such products to be marked, please contact Provinor AS!

### Custom molding

Under certain conditions and depending on production technology and numbers to be produced, molding of customer designed products/ customized products can be offered. Please feel free to contact **Provinor AS** for further information.

### www.provinor.no - www.polyform.no - www.bigbuoys.no

To keep you up-to-date at any time with regard to our company and to obtain latest product news and other important information, we offer our customers to log into our web-sites. Here you will find all relevant information about all our products, names and phone numbers / e-mail addresses of your contact persons within **Provinor AS** plus much more information which is intended to be for your assistance. Please use our web-sites as the tools they are intended to be - and please do not hesitate to give us feed-back and ideas for improvements!

Everyone with **Provinor AS** is working hard to deliver products of highest quality, guaranteed by the leading trademark **POLYFORM**® - the originator of the modern plastic buoy and fender.

**We are - Always at Your Service - World-wide**

All information in this brochure is to be regarded and used as a general guidance only. Due to many variables out of Provinor AS' control, the customer / end-user has the final responsibility to determine product suitability for his application. Provinor AS shall not be responsible for the selection of the product, for its installation and use. While every reasonable effort has been made to insure that you will receive a product that you can use and enjoy, Provinor AS does not warrant that the product will meet your requirements. Please allow for +/- 5% tolerance for all measurements and weights given in this folder. The illustrations in this brochure may differ from the actual products. We reserve the right to change design and measurements without prior notice. Over-inflation of the product voids warranty. Maximum measurements given in this brochure shall not be exceeded. For latest news and updates please check our web sites [www.polyform.no](http://www.polyform.no) - [www.bigbuoys.no](http://www.bigbuoys.no) and [www.provinor.no](http://www.provinor.no)