



Innovative Plastic Sheet and Box Maker

## Polyreflex Hi-Tech Co., Ltd.

Polyreflex team with over 15 year experiences, specializing in the manufacture of lightweight plastic sheets, one-stop solution for thermoforming, machining, and assembly, dedicated to signs and displays, logistics and packaging, vehicles, and chemical industries. Warmly welcome project purchasing managers, wholesalers, individual consumers and designers to write us your requirements.

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### Polyreflex Company profile

Our products  $\infty$  solutions

**710**  
We employ 710 employees

**15**  
More than 15 years technology know-how

**100%**  
We are there for you with 100% engagement

**6**  
At 6 locations

**89,000**  
Over 89,000 m2 production area

**38**  
Sell more than 38 countries and regions

**60,000**  
Every year we produce 60,000 tons Polyreflex materials

**1**  
Everything from 1 source



### Polyreflex High Density Polyethylene Sheet

Corrosion Resistance

Low Temperature Resistance

Good Toughness and Rigidity

#### DESCRIPTION

#### SPECIFICATIONS

#### TEXTURED SURFACE

#### PROCESSING SERVICE

#### FABRICATION SERVICE

#### USES

### Description

#### Polyreflex high density polyethylene sheet (HDPE)

is a durable and versatile thermoplastic, which could offer high impact strength, high friction resistance, toughness with wide temperature range from -50°C to 80°C.

HDPE sheet has effective resistance to chemicals and good welding ability, so it can be easily welded into chemical tanks. HDPE is resistant to corrosion, mold, mildew, and rotting, this makes it extremely durable in various environments. At the same time HDPE board is widely used for light industry, it is an ideal material for replacing metal to make mechanical parts.

These are just a few of the popular HDPE applications. However, it can be useful in nearly any application where strength, moisture resistance, and chemical resistance are necessary.



#### Chemically Stable

High density polyethylene sheet has the properties of acid and alkali resistance. It is resistant to most chemicals for daily use and industrial.

#### Low Temperature Resistance

Unlike most plastics, polyethylene sheet has the characteristics of low temperature resistance, even at minus 40 degrees, it can maintain toughness without brittleness.

#### Recycling

HDPE sheet is 100% recyclable. After the used polyethylene material is fragmented and heated to the melting point, it can be recycled, sorted and reused.

#### Anti-abrasive

HDPE sheet can resist impact and friction well, and is also widely used in industrial applications, such as rails and guides in manufacturing facilities.

#### Highly Processable

Due to its high machinability, HDPE sheets can be processed using a variety of machining methods, such as cutting, welding, deep drawing, routing, riveting, milling, and hot and cold forming.

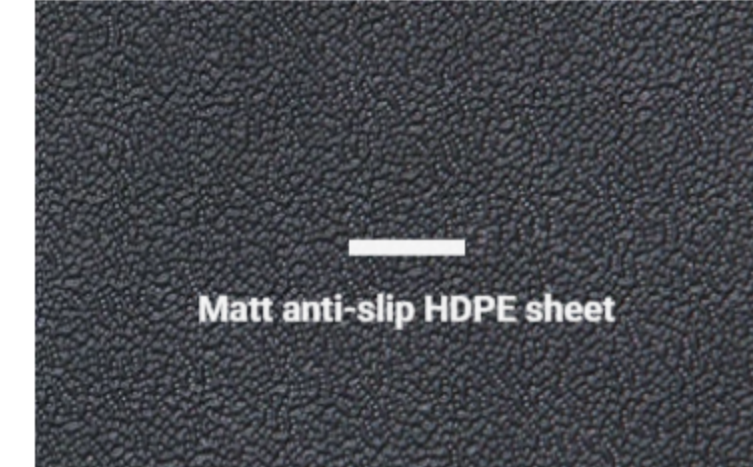
### Specifications

Product Type	Ultra-thin	Thin	Thick	Ultra-thick
Image				
Thickness	0.4mm - 2.9mm	3mm - 25mm	30mm - 100mm	105mm - 200mm
Width	Max. 1900mm	Max. 1900mm	Max. 1220mm	Max. 1000mm
Standard Size	1220*2440mm, 1500*3000mm	1220*2440mm, 1500*3000mm	1220*1220mm, 1000*2000mm	1000*2000mm
Surface	Various texture options	Various texture options	Smooth	Smooth
Density	0.96 - 1.0 g/cm <sup>3</sup>			
Color	Natural, white, black, green are standard colors, custom colors are available			
Service options	CNC machining, welding, bending, thermoforming, fabrication and assembly			

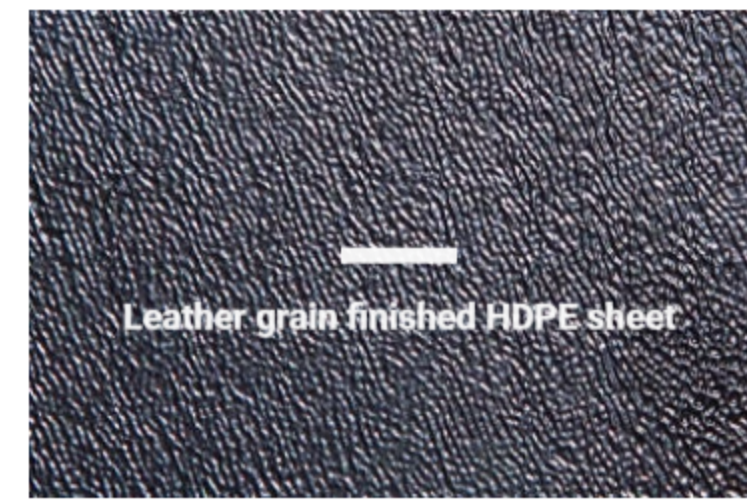
### Textured Surface



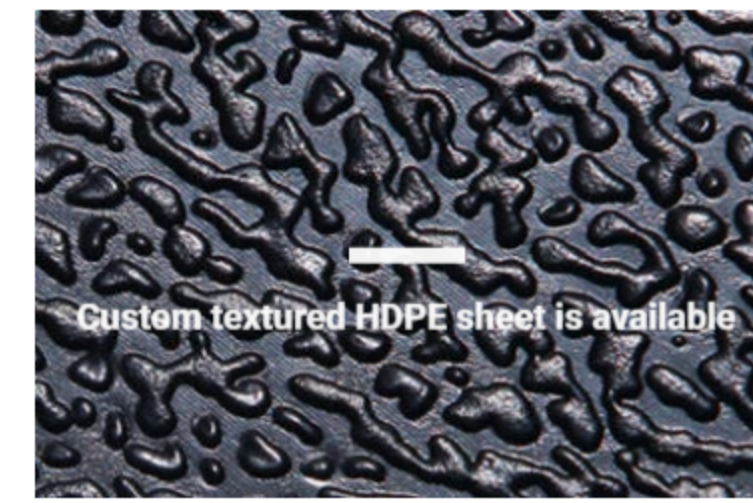
Textured surface is suit for 0.8-8mm HDPE sheet



Matt anti-slip HDPE sheet



Leather grain finished HDPE sheet



Custom textured HDPE sheet is available

### Processing Service



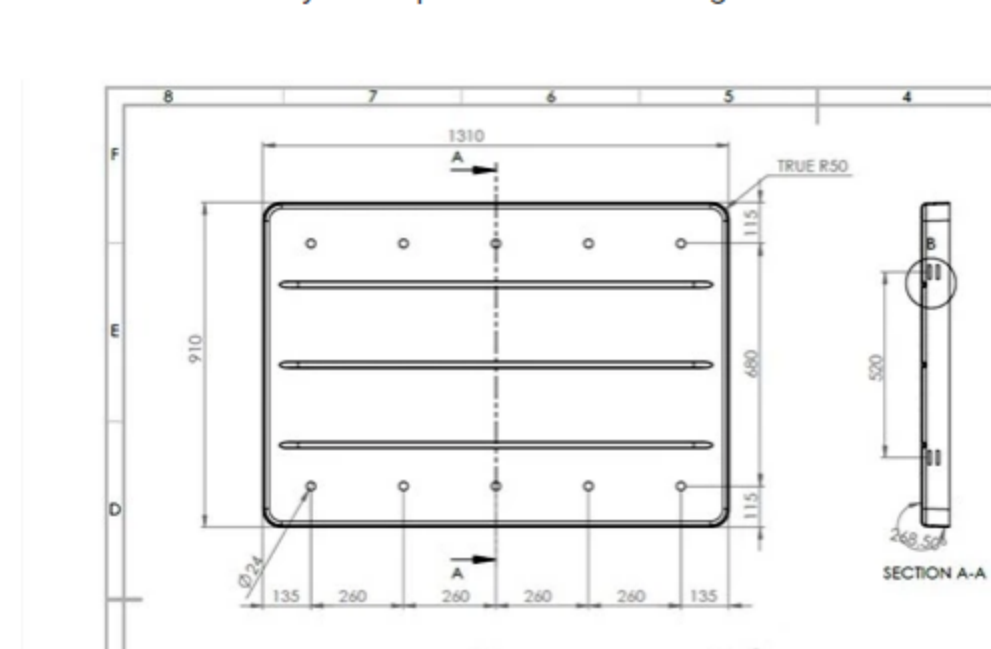
Polyreflex provides machining service



Vacuum forming service



Injection molding service



1) Send us your drawings and requirements

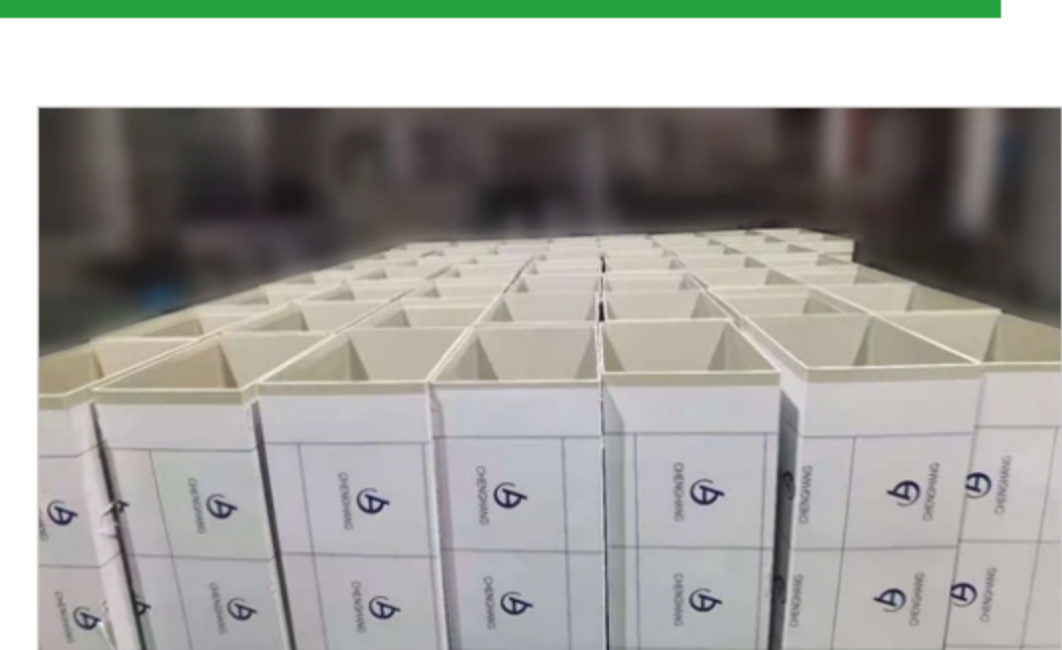


2) We make the thermoforming moulds

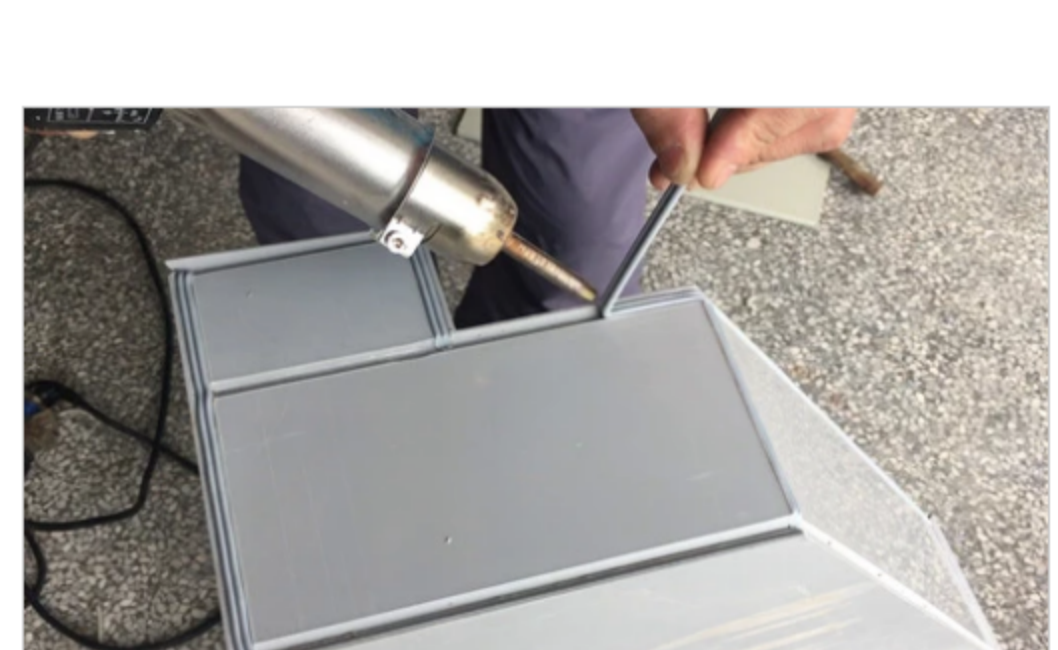


3) Sample testing and mass production

### Fabrication Service



Bending, the longest bending length is 7 meters



Welding HDPE board with rod

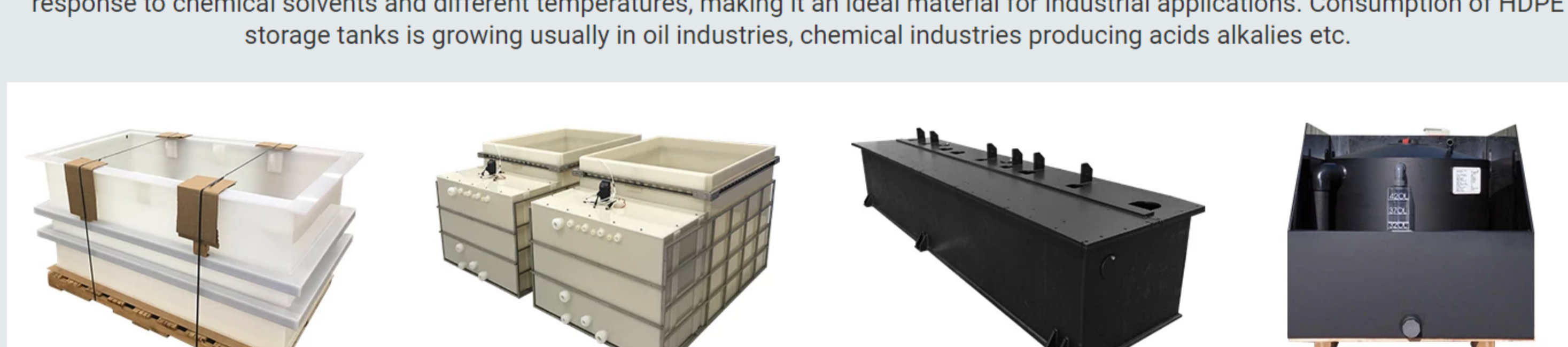


Butt welding HDPE board to a circle

### The Use of High Density Polyethylene Sheet

#### Industrial Grade HDPE

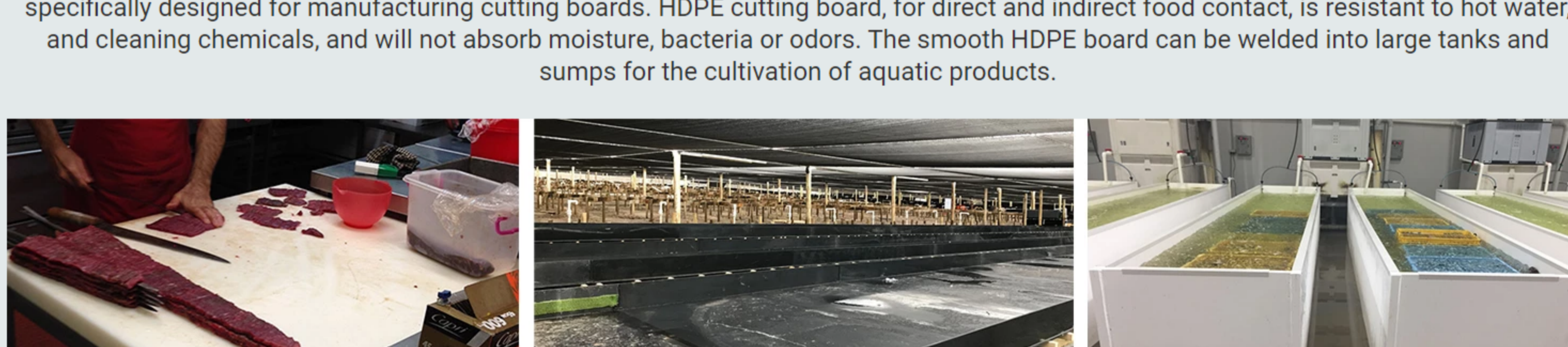
As a member of the polyolefin family, HDPE has good electrical properties, and exhibits strong corrosion resistance and durability in response to chemical solvents and different temperatures, making it an ideal material for industrial applications. Consumption of HDPE storage tanks is growing usually in oil industries, chemical industries producing acids alkalis etc.



[VIEW MORE](#)

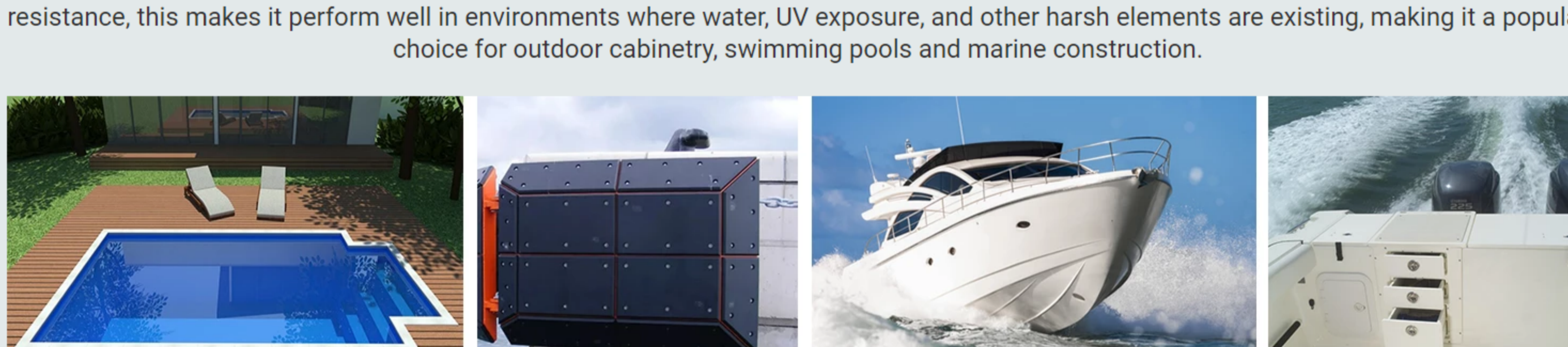
#### Food Grade HDPE

Special additives are used for food contact HDPE to reduce the propagation of E. coli and Staphylococcus aureus. The Matte HDPE sheet is specifically designed for manufacturing cutting boards. HDPE cutting board, for direct and indirect food contact, is resistant to hot water, and cleaning chemicals, and will not absorb moisture, bacteria or odors. The smooth HDPE board can be welded into large tanks and sumps for the cultivation of aquatic products.



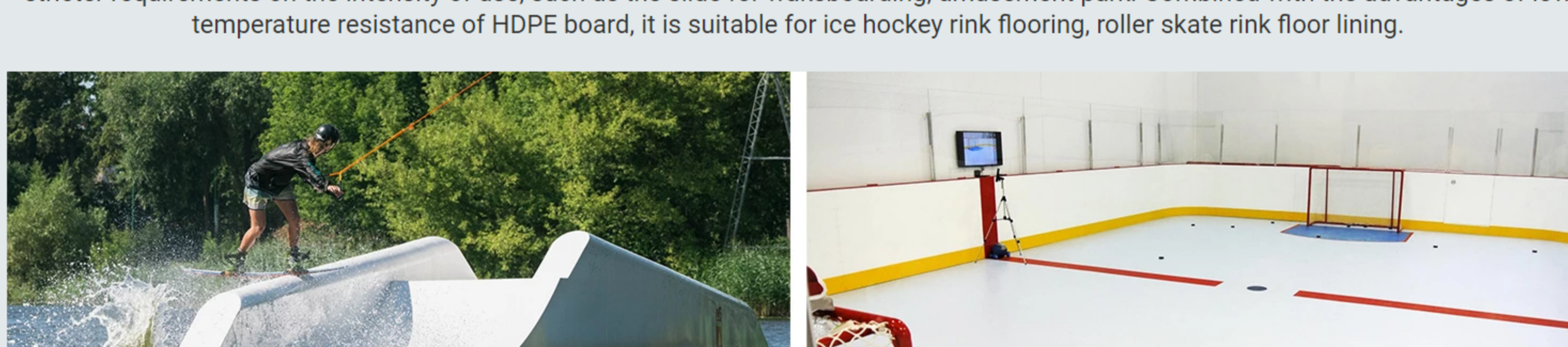
#### UV Resistant Grade HDPE

Adding antioxidants and ultraviolet absorbers can enhance HDPE's weather resistance and UV resistance, this makes it perform well in environments where water, UV exposure, and other harsh elements are existing, making it a popular choice for outdoor cabinetry, swimming pools and marine construction.



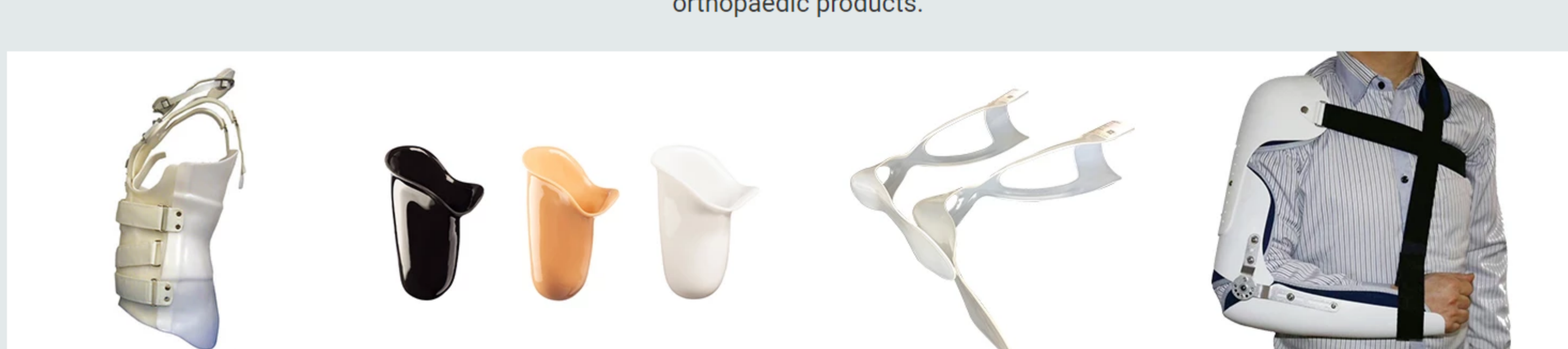
#### Reinforce Grade HDPE

Polyreflex reinforced HDPE board is at least 20% stronger compare to the standard HDPE board. It is developed for applications that have stricter requirements on the intensity of use, such as the slide for wakeboarding, amusement park. Combined with the advantages of low temperature resistance of HDPE board, it is suitable for ice hockey rink flooring, roller skate rink floor lining.



#### Medical Grade HDPE

Stiffness enhanced HDPE sheet is stiffer and tougher than homopolymer polypropylene, and often used for applications where additional durability and support are required. In addition, HDPE is a thermoplastic, it is the best material for orthopaedic surgery engineers to make orthopaedic products.



### List of Test Reports

- \* HDPE Sheet RoHS Test Report
- \* HDPE Sheet FDA Test Report

If you would like to discuss your specific product requirements further, please feel free to contact us.

<http://www.polyreflex.com/>

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