

# Innovative solutions in plastics



## Custom Mouldings

Our plastic products are often the ideal replacement or alternative for products made of wood, metal or concrete. By using the possibilities that plastic offers, especially in the area of moulding, we can frequently come up with surprisingly innovative solutions.

Plastics are ideally suited for use in industrial and logistic applications. This is due to the combination of properties and characteristics such as; shock- and impact resistance, load bearing capacity, flexibility and weather resistance. Plastics are also moisture-proof, which means they will not absorb any liquids (like

many wooden products do) and remain hygienic for that reason.

The know-how and expertise within the company as well as modern design tools allow Lankhorst to monitor the entire process from concept to delivery. All steps are in accordance with ISO 9001, ISO 14001 and OSHAS 18001.

Our technology expertise enables us - after performing an in-depth analysis - to present our customers with the most creative ideas, which they would probably never have thought of on their own!

*Creative plastic solutions*

### Our capabilities

Lankhorst can process both commodity plastics (amongst others: LDPE, HDPE and PP) and engineering plastics (amongst others: PA, PU). It is about finding an optimal balance between customers' requirements such as impact-, heat resistance and stiffness.

If possible, Lankhorst uses high quality recycled materials to reduce costs and save the environment. With a diverse range of production machines Lankhorst can handle a large variety of wall thicknesses and shot weights. Wall thickness varies from 5-250 mm. Starting with a shot weight from 0,5 kg. The product weight can go as high as 250 kg!



for automobiles, electronics or construction. Our in-house research complements other data sources to accurately predict product behavior under long term compression or impact.

Product development time has been shortened using design tools such as 3D CAD and Finite Element Methods. All facilities for simulating real-life conditions are available for our R&D team, an example of which is our long term compression apparatus which is routinely used at temperatures between -30°C to 40°C.

Lankhorst carries out a range of tests on the unprocessed raw materials, production samples and end products to ensure a consistent quality throughout the manufacturing process. These tests are all carried out using our fully calibrated in-house laboratory and testing equipment.

The tests on raw materials and production samples include humidity checks, melt flow index measurements, tensile properties and impact tests.



### Research & Development

At our laboratories in the Netherlands we have generated a volume of our own, fundamental research in the behavior of plastics in high mass shapes. We have found that available literature on strength properties of plastics are based on thin parts, such as



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## Why choose KLP® plastics?

### Low Life Cycle Costs

- Expected lifespan of over 50 years
- Virtually maintenance free

### Easy to process

- KLP® can easily be sawn, drilled, planed and screwed
- Light-weight compared to concrete alternatives, therefore easier to handle

### Durable

- Inert to most chemicals
- Impervious to moisture, rot, fungus and insects

### Environmentally safe

- Made of 100% recycled plastics
- Contains no toxic materials
- No leaching of chemicals to the soil or ground water
- 100% recyclable after their long functional life
- Low carbon footprint

## Lankhorst Mouldings

Lankhorst can already look back at a successful and versatile history of over 35 years, but we tend to look at the future as the future always brings new opportunities, new ideas and most importantly new solutions. Since Lankhorst produced its first plastic post using intrusion moulding in 1977, many innovations have come to maturity.

Today Lankhorst has their own Research and Development department capable of designing, calculating and testing products. Lankhorst now serves a variety of markets with large plastic products molded from either recycled plastics or new materials. For an overview of markets and product portfolio we invite you to visit our website [www.lankhorst-ep.com](http://www.lankhorst-ep.com)



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## Various markets

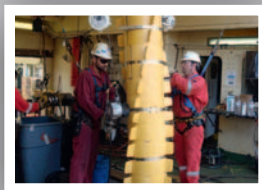
### Steel Industry

These products are found everywhere where heavy coils need storage or transportation.



### Offshore Industry

Lankhorst provides engineered solutions for sub sea risers and flow lines.



### Flexographic Industry

For the packaging industry Lankhorst has developed a range of HACCP-approved plastic carriers.



### Sewer System Industry

Lankhorst has developed sewer manholes for a large company in sewer systems. A complete tailored system for the use under ground.



### Rescue Products Industry

A true example of the strength and reliability of our plastic products are the product series for the rescue market. These rescue products are used to stabilize vehicles after car crashes and are capable of bearing enormous loads.



### Civil and Construction

#### Engineering

From day one Lankhorst has supplied plastic products for various civil and construction engineering applications such as retaining walls, marine decking, plastic bridges, marine fenders, sheet piling etc.



### Rail Industry

The ban on creosote was one of the reasons for Lankhorst to develop sleepers made out of recycled plastics. These sleepers are maintenance free and have a lifespan of over 50 years.



### Pipe Storage

For safe and efficient storage of pipes Lankhorst offers FixFLEX pipe carriers and PipeStop Systems.



### Plastic Sheet Applications

Ekon, part of Lankhorst, is the leading producer of polyethylene (PE) and polypropylene (PP) sheet material through the flat-die-extrusion process. These plastic products are used in diverse markets including animal keeping, civil engineering, construction, packaging and automotive.



More info: [www.lankhorst-ep.com](http://www.lankhorst-ep.com)