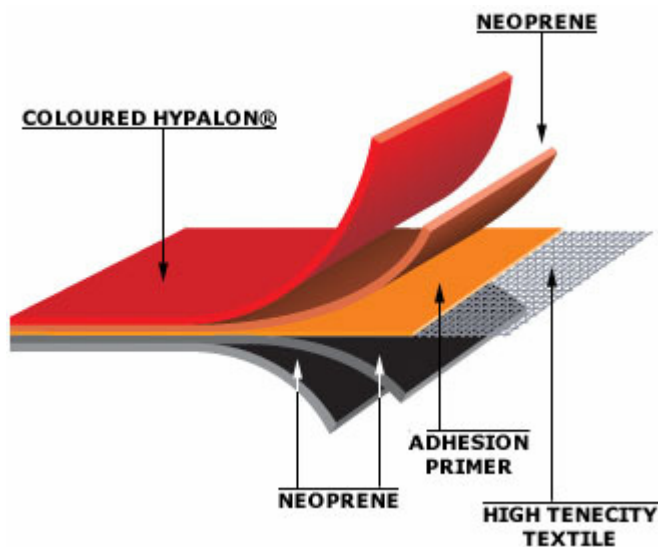


## Miksi Hypalon on kestävämpi?



## Inflatable Boats: Hypalon® vs. PVC and Why Hypalon Comes Out On Top

### What are you looking for in an inflatable?

Storage, environment, and purpose are all factors you should consider when choosing your inflatable. Some fabrics and designs are better suited for certain conditions. The following questions will help you determine which type of inflatable is best for you.

- How will I be using the inflatable?
- Where will I store the boat when I'm not using it?
- Am I going to use the boat in an area constantly bombarded by extremely harmful UV rays?
- Do I have an outboard motor that I would like to use with the inflatable?
- Will I be primarily using an outboard motor or rowing the boat?

### Hypalon® and Neoprene Coatings (Synthetic Rubber Coatings)

Hypalon is a synthetic rubber material patented by DuPont. Hypalon has many applications in many industries: holding contaminated wastewater, a roofing material, cable covering, and other uses where high temperatures, oil, and UV rays could weaken other materials. The majority of inflatable boat manufacturers choose Hypalon as an exterior coating, and neoprene to coat the interior side of the fabric. Neoprene was the first synthetic rubber and has been in use over 70 years. It has proven itself as a material with excellent air holding capabilities and oil resistance.

### PVC (Plastic Coatings)

PVC is a vinyl polymer chemically known as polyvinyl chloride. It has several applications in the leisure and construction industries: making inflatable pool toys, mattresses, beach balls, above ground pools, capping for soffits, and more. In the inflatable industry it is used as coating on polyester or nylon to increase the strength and tear resistance. Because it is a type of plastic, it can be thermobonded or glued. This allows the manufacturer to mass produce the boats on a large scale with machines and unskilled labor. But repairs can be

difficult on PVC boats because thermowelding is not feasible outside of the factory and it is very hard to repair even a pinhole leak in a seam.

### **Hypalon Features**

Hypalon is mainly used as an exterior coating for inflatable boats worldwide, as it has the best properties for resisting abrasion, extreme temperatures, UV degradation, ozone, gasoline, oil, chemicals, and environmental factors like mildew and fungus. When manufacturers use neoprene as the interior coating the blended fabric only gets better. The neoprene increases strength and tear resistance and provides the ultimate in air holding ability. Hypalon coated onto polyester or nylon fabric with an interior coating of neoprene is the most reliable and durable inflatable boat fabric available and can last for more than a decade even in the harshest environments—which is the reason for warranties of five and 10 years. Inflatables with external protective coatings of Hypalon have been chosen for the toughest duty by the U.S. Military and Coast Guard.

### **PVC Features**

PVC was designed to maximize the portability, durability, and convenience of many products. PVC coated fabrics come in a larger array of colors than Hypalon® or neoprene coated fabrics—and that's why pool toys and floats have such wild, bright patterns. While some manufacturers have developed strains of PVC with "memory"—allowing products to return to their original size after deflation—and some are strengthened to be more cold resistant, PVC fabrics are not as resistant to chemicals, gasoline, temperatures, abrasions, and sunlight as Hypalon-coated fabrics. All of these factors are common place in boating environments.

### **Hypalon Construction**

The seams in Hypalon boats are either overlapped or butted, and then glued. Butted seams produce an aesthetic, flat, airtight seam, without the ridge or air gaps left by some overlapped seams. However, butted seams are more labor-intensive, thus the boats are usually more expensive. It is always wise to look for an inflatable boat with seams that are double-taped, and are glued on the both sides. In stress tests, Hypalon and neoprene glued seams are so strong and reliable that the fabric will fail before the seams.

### **PVC Construction**

The seams of PVC-coated inflatables can be fused together using several different welding techniques. Some manufacturers use either high heat pressure, radio frequencies (RF), or electronic welding. Large, specially developed welding machines must be used to fuse the fabric together. Again, this makes it easier and faster to produce PVC-coated boats, especially over handcrafted Hypalon boats. Despite many technological advancements, the heat used to weld the seams is not always distributed evenly across the seams—which creates pockets where air may escape—and welded seams tend to become brittle over time. PVC seams are also glued, but the process of gluing PVC seams can be extremely difficult—skilled workers and practiced techniques are the only guarantees of a strong seam. Fabrics coated with PVC are also more difficult to repair than those coated with Hypalon.

### **Hypalon Use**

Because Hypalon-coated boats are extremely resistant to environmental caustics, they are recommended for use in severe climates, for boaters who plan on leaving their boats inflated, or for those who plan on using them frequently.

## **PVC Use**

PVC boats are generally good as limited-use boats that won't be subjected to the sunlight or elements for any sustained amount of time.

## **Inflatable Boat Design**

There are many designs and types of inflatables available in the marketplace today. From rigid to roll-up floorboards, hard transoms to soft—inflatables come in just about every combination you can imagine.

### *Dinghies*

Dinghies are smaller, lighter boats with soft transoms that can be used with oars, a paddle, or even a low horsepower motor if a motor mount is used.

### *Sport Boats*

Sport boats are inflatable boats with a hard transom, and a sectional floor made of wood, fiberglass, composite, or aluminum. They also have inflatable or wood keels. These boats can be rolled up once the floor is removed.

### *Roll-Ups*

These boats have a hard transom that can be rolled up with the floor remaining in the boat. The floor can be made from any material. The boats perform very well, almost identically to traditional sport boats. The main benefit is easy assembly and storage.

## **Inflatable Floor Boards**

Inflatable floor boats usually have hard transoms, inflatable keels, and high-pressure inflatable floors. This decreases the weight of these boats and makes them easier to handle if you must inflate/deflate your boat often.

## **Rigid Inflatable Boats (RIBs)**

RIBs are more like traditional boats, with hulls supported by a rigid material, usually fiberglass or aluminum. The main benefits of these boats are superior performance and easy assembly (just inflate the tubes). However, storage can be a problem because they can't be made smaller than the rigid portion of the boat. Since a RIB is heavier, a davit system is usually required to bring it back onto your boat.

## **Choices**

There are many boats out there to choose from, but a careful analysis of your boating lifestyle and needs should help you make the right choice.

RIBCRAFT :

## **The Collars / Tubes**

Ribcraft are one of the few RIB builders who have always manufactured their own tubes. The tubes are hand made to the individual application by experienced experts. Buoyancy Tubes are constructed from internationally recognised materials either flexible closed cell foam or Hypalon® inflatable collars; Du Pont Hypalon® is the main material which is used for heavy duty sponsons world-wide and is popular for it's durability and ease of repair.

### **Tube Design**

Ribcraft will design your tubes to perfectly fit your hull, whether its a new design or an established brand, we will make collars to suit. Ribcraft will manufacture your collars to an exacting specification, tube colours, corporate branding and fittings.

### **Tube Construction**

To insure the highest quality, Ribcraft tubes are made using Hypalon®, the leading material in the industry. As the only proven and time-tested material, Hypalon® has incredible resistance to abrasions, chemicals such as fuel oils, mechanical stresses, UV damage, and extreme temperatures. Furthermore, Hypalon® is easily repaired even after years of service.

Ribcraft tubes are cut to exacting patterns Using 1100 or 1670 Dtex Hypalon®, all seams are carefully overlapped and double taped internally and externally. Every stress point is double up including the aft section of all tubes providing extra reinforcement. All tubes have a heavy-duty rub strake designed to take heavy abuse and protect the tubes. Once assembled, Ribcraft tests every tube to the strictest international standards before installation, resulting in the most airtight and resilient tubes available.

For Hot climates or extreme usage Ribcraft recommend over pressure relief valves. These valves protect the tubes by releasing excess pressure that can occur during extreme manoeuvring operations in the open sea, an impact with waves or obstacles at high speeds, or an excess of pressure during inflation.

With safety in mind, Ribcraft permanently attaches the tubes to the hull using an integral hinge system designed to absorb shock and minimise abrasion.

### **Why Hypalon®?**

Ask anyone who has had years of experience in using Rib's why Hypalon® is the only fabric to use, and they will all tell you the same thing, because you can repair it extremely easily should the need arise. Hypalon is by far the longest lasting tube fabric available due to its long-term serviceability. This is reinforced by organizations that use it (R.N.L.I., Coastguard, MOD etc).

	<b>ORCA® 828</b> PES 1100 dtex 1300 g/m <sup>2</sup>	<b>ORCA® 866</b> PES 1670 dtex 1500 g/m <sup>2</sup>
Ice White	X	X
Arctic Grey	X	X
Light Grey	X	X
Neptune Grey	X	X
Military Grey	X	X
Black	X	X
Straw Yellow (New)	X	
Yellow Colorado	X	X
Yellow SunFlower	X	X
Orange Phebus	X	X
Orange Sylvano	X	X
Stromboli Red	X	X
Vesuve Red	X	X
Bordeaux (New)	X	
Army Green	X	X
Italia Green	X	
Caraibe Green	X	
Cream	X	X
Ivory	X	X
Colonial	X	
Ice Blue (New)	X	X
Sea Foam (New)	X	
Alpin Blue	X	
Ibiza Blue	X	
Ocean Blue	X	X
Dark Blue	X	