

DOUBLE COAT

Paintsystems



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Introduction

Coating systems

De IJssel Coatings offers a complete range of paint products for construction, repair and maintenance of ships and yachts. The products of this range are carefully matched to each other so that each product combination (the coating system) provides optimal protection against the effects of sun, wind and water. In addition, these materials are characterized by their durability and simplicity of use.

The product range includes materials for the protection and beautification of steel, aluminium, wood, epoxy, polyester and various other composite materials. The products can be divided into the following product groups:

IJmopox

Low-solvent, two-component epoxy products for steel and aluminium. These products are also suitable for the treatment of polyester under the water line, for example for preventing osmosis or for the repair of damage caused by osmosis.

Variopox

Solvent-free epoxy products for the repair and maintenance of wooden boats. These products

can also be used for the protection of a polyester or epoxy laminate, for laminating and for gluing of different materials. This range also includes a complete line of two-component fillers. These fillers are suitable for minor repairs, but also for the complete fairing of the hull: a suitable filler is available for all work types.

Poltix

Repair materials and fillers based on unsaturated polyester for the repair and maintenance of polyester surfaces.

Double Coat

With Double Coat, surfaces made of polyester, steel, aluminium, wood or epoxy receive a high quality and durable two-component polyurethane coating system, with long-lasting colour and gloss.

De IJssel Coatings strives to develop products that impair humans and nature as little as possible.

Your Double Coat dealer and we are happy to advise you in detail about usage and applications of our products.

More information can be found on our website www.de-ijssel-coatings.nl



Coating systems for **Polyester**



Polyester or GRP consists of glass-reinforced polyester resin. Polyester has many advantages; a well-maintained polyester boat has a long life.

In general polyester consists of several layers: the gelcoat and the laminate. The gelcoat is the outer coloured layer of the polyester hull. This layer is approximately one millimeter thick. Behind the gelcoat is the laminate. This laminate consists of several layers of polyester resin reinforced with glass fiber or a glass fabric.

Because of exposure to sunlight and through contact with (salt) water, a gelcoat requires after several years maintenance and protection. Visible effects of these influences are, for example, the loss of gloss, hairline cracks, porosity and, especially below the waterline, osmosis.

The gloss of the gelcoat decreases through ultraviolet radiation. A boat wax or cleaner can delay this process or stop it for a while, but ultimately a new colour layer is necessary to restore long-lasting gloss and protection.

Pretreatment

If you wish to paint a polyester finish, you must first clean the gelcoat. For this you can use warm water with liquid soap. After the surface has dried, clean it with a degreaser, for example, with Double Coat degreaser. This will remove any traces of wax, silicone and solvents. Then you can sand with abrasive paper with suitable grit size. Afterwards, clean the surface again with a generous amount of degreaser. Old layers of paint are best removed by sanding. Do not use paint stripper or a heat gun, because you could then damage the surface.

Filler

If a gel coat has more severe damage, it can be repaired with a filler. For repairs below the water line, we recommend one of the Variopox fillers. For quick repairs above the water line you can use a polyester filler, Poltix Superfiller or IJmofix for example. Always sand the repaired areas and touch up with the first layer of the paint system.

Crackle

Due to the intensive use of the boat the gelcoat will become slightly damaged. These areas can later develop hairline cracks and crackle. IJmopox ZF primer is a good way to repair these cracks. Sand the surface and perhaps sand the small cracks away. Using a brush apply a general coat of IJmopox ZF primer and with the aid of a rubber spatula bring the primer into the cracks. Afterwards, remove excess IJmopox ZF primer from the surface. It may be necessary to repeat the treatment until all the cracks are sealed thoroughly. After sanding apply a full coat of IJmopox ZF Primer.

Microporosity

Heavily weathered polyester may show small holes, called microporosity. These holes are sometimes smaller than the head of a pin. When one applies Double Coat over a microporous surface, this might lead to the formation of small bubbles in the paint. By pretreating weathered





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polyester with IJmopox ZF primer, this micro porosity is filled and a good base is obtained for further treatment with Double Coat.

Osmosis

Osmosis occurs when water is absorbed into the polyester laminate. Causes for osmosis may be the quality of the gelcoat used, the combination of glass and polyester resin with which the laminate was constructed, or the craftsmanship with which the boat was built. Also, temperature

and type of water play an important role in the formation of osmosis. Osmosis is the result of a chemical reaction between water and the soluble materials in the laminate. This results in a salt solution, which in turn attracts more water, whereby the process is accelerated. The final result is an increase in the volume, which is visible as blisters in the gelcoat filled with a brown or gray-green substance which smells like vinegar. De IJssel Coatings offers a variety of materials to prevent and repair osmosis.

Coating system overview

De IJssel Coatings has developed a variety of products with which the damage discussed above may be easily and purposely prevented or repaired. Here are some examples.

Order	1	2	3				4		5
Area	Double Coat degreaser	Variopox injection resin	Umpox ZF primer	Variopox filler	Variopox LG filler	Variopox finishing filler	Variopox Rolcoating	Umpox HB coating	Double Coat
POLYESTER									
Osmosis repair		1						5	
Under the waterline								4	
Above the waterline			1						3
Deck			1						3
Superstructure			1						3
Behind the panelling							1		

= Recommended
 = Optional/if necessary
 5 = Number of layers when applied with brush or roller



Coating systems for **Steel**



Steel is used as a building material for the construction of yachts due to its strength, ease of fabrication and water tightness. The great strength in relation to the plate thickness in combination with the ability to cut, bend, and weld makes steel particularly well suited for the hull or superstructure.

Although steel is an extremely versatile building material, it oxidizes. The most common form is rust. Under the influence of (salt) water and

oxygen steel reacts to iron oxide. In this case a coating system from De IJssel Coatings is the right solution.

Steel is not only strong but also flexible. A collision may result in a dent in the steel. A dent in the steel can lead to a crack in the paint system. Water has free play through the crack or fissure and corrosion can result. It is therefore important to check the paint system after a collision and repair it if necessary.

Pretreatment

For a long lasting protection of steel the quality of the pretreatment is a crucial factor for success. Careful pretreatment of new construction is done by gritblasting, for example to ISO Sa 2½. Gritblasting is the safest and fastest method which should be carried out by specialized companies. In the course of maintenance rust and other impurities are removed by sanding the steel blank up to ISO St 3 with sanding discs with a particle size P24 to P36.

Welding primers

New steel is usually coated with a so-called shop primer or welding primer. If this steel is used below the waterline, it must be checked whether the shop or welding primer used is suitable for this use. If this is not the case, you have to remove the shop primer to prevent later formation of blisters. It is advisable to match the welding primer to the selected coating system.

Sharp corners, welding seams and spots

Sharp edges and corners should be rounded to a diameter of approximately 3 mm wherever possible. Sharp welding seams and spots (weld spatter) must be sanded smooth or removed. A coating system is most sensitive at sharp surfaces. Damage at these areas can quickly lead to rust.

Filler

We recommend Variopox epoxy filler when it is necessary to repair the surface or for fairing the surface. Use the filler only on steel that has been treated with a sufficiently thick layer of primer, such as IJmopox ZF primer. Limit the amount of filler below the water line to a minimum.

Coating system overview

De IJssel Coatings has developed a variety of products with which steel may be easily and purposely protected. Here are some examples.

Order	1	2	3			4		5	
Area	Double Coat degreaser	IJmopox ZF Primer	Variopox filler	Variopox LG filler	Variopox Finishing filler	Variopox Rolcoating	IJmopox HB Coating	Double Coat	Double Coat Anti-slip
STEEL									
Under the waterline		2					3		
Above the waterline		1					2	3	
Deck		1					2	3	1
Superstructure		1					2	3	
Behind the panelling		1				2			

 = Recommended

 = Optional/if necessary

5 = Number of layers when applied with brush or roller

Coating systems for **Aluminium**



Steel is often replaced by aluminium in the construction of yachts. Aluminium is lighter than steel and is less sensitive to collisions.

Although aluminium is lighter it still oxidizes just as steel does. In the course of the oxidation process a white layer is formed on the aluminium. This is a corrosion product and can protect the aluminium from further corrosion, but this protection is not permanent. If this oxidation layer is damaged, its protective effect decreases. For a long-lasting protection a layer of paint is recommended. Fresh and salt water also corrode

this oxide layer. Therefore, it is necessary to provide aluminium with a coating system.

Aluminium is also sensitive when it comes to tension; think metal fatigue. Through metal fatigue cracks in the welds may be produced. This applies especially for light boats which are placed under heavy demands.

Pretreatment

To achieve long-term protection, it is necessary to pretreat aluminium well. This is achieved by blasting with aluminium oxide grit. Blasting is the safest and fastest method which should be

carried out by specialized companies. Another method is to first degrease the aluminium with, for example, Double Coat degreaser and then to sand it blank with gritpaper suitable for aluminium. The sanded surface must be treated as soon as possible with the first coat of primer, such as IJmopox ZF primer.

Galvanic corrosion

Aluminium combines poorly with other metals such as copper and (stainless) steel. Such combinations result in galvanic corrosion. The aluminium will be destroyed and damaged very rapidly. Therefore, it is not recommended to treat aluminium boats with an anti-fouling paint containing copper or copper salt.



Filler

We recommend Variopox Filler if it is necessary to repair the surface or for fairing the surface. Use the filler only on aluminium that has been treated with a sufficiently thick layer of primer, such as IJmopox ZF primer. Limit the amount of filler below the water line to a minimum.

Coating system overview

De IJssel Coatings has developed a variety of products with which aluminium may be easily and purposely protected. Here are some examples.

Order	1	2	3			4		5	
Area	Double Coat degreaser	IJmopox ZF primer	Variopox Filler	Variopox LG filler	Variopox Finishing	Variopox Rolcoating	IJmopox HB Coating	Double Coat	Double Coat Anti-slip
ALUMINIUM									
Under the waterline		2					3		
Above the waterline		1					2	3	
Deck		1					2	3	1
Superstructure		1					2	3	
Behind the panelling		1				2			



= Recommended

= Optional/if necessary

5

= Number of layers when applied with brush or roller

Coating systems for **Wood**



Wood combines strength with flexibility. Wood is a natural product that can be easily moulded into beautiful shapes and designs. As a natural material wood has some disadvantages, such as moisture content and shrinkage. Wood consists of fibres that can absorb moisture. Thus, it can stretch or shrink. Moisture in the wood can lead to mould growth and wood rot.

Hardwood or softwood

The following types of wood are often used in the construction of yachts:

- **Mahogany**

Mahogany is a hardwood species that is used for planking or for interiors. Mahogany needs little protection in sea water. In freshwater rot can occur and protection is therefore necessary.

- **Teak**

Teak is a hardwood species with a long life. Teak contains oil and is water resistant, it is wear-resistant and durable. Teak is used for deck material, outside equipment and indoor applications. Teak is a difficult material for coating systems.

- **Iroko**

Iroko is an oily hardwood species. Iroko is water-resistant, wear-resistant and durable.

- **Oak**

Oak is a hardwood species with a long life. When oak wood comes into contact with steel dark spots can develop. Oak wood is used for interior pannelling, frames, etc. Many old sloops are made of oak. Because of its leaching properties oak is a difficult substrate for paint systems.

- **Softwood**

These woods come from trees that grow faster than hardwoods. The fibers are longer and farther apart. Therefore, the strength lies mainly in the longitudinal direction and therefore softwoods are used primarily for masts and poles. Soft woods require added protection from a coating system.

the moisture content. Moisture in the wood looks for a balance with the environment in which the wood is stored. If the environment is very humid, the wood will have a high degree of moisture content. For good painting the moisture level must not be higher than 12 percent. The moisture content can be measured with special moisture meters.

Wood rot

Under the influence of water wood can rot. Small areas of rotting wood pieces can be removed. Alternatively, the area can be repaired with Variopox Filler or Variobond after the wood has dried. Always apply a first layer of Variopox Injection resin as an adhesive layer. If larger pieces of wood are affected by rot these should be replaced with new wood. Variobond can be used for bonding the new pieces to the old structure.

Moisture level

For long-lasting protection, it is necessary to pretreat wood well. A crucial factor for success is

Pretreatment

New wood must be dry and free of grease and oil. Extra care must be used when dealing with





Coat degreaser is an alternative. Sand new wood in the direction of the wood grain with P60 to P80 grain and then increasingly with P100 to P220. Always use a suitable dust mask as protection against sanding residues, especially if sanding hardwood.

Filler

We recommend Variopox Filler when it is necessary to repair the surface or for fairing the surface. Only use filler on wood which is sufficiently primed with Variopox Injection resin or Variopox Impregnating resin. Limit the amount of filler under the water line to a minimum.

Coating system overview

De IJssel Coatings has developed a variety of products with which wood may be easily and purposely protected. These products are divided into two groups: products for a finish in a solid colour and products for a transparent finish.

oily and resinous wood. In the application of two-component systems one must avoid degreasing with ammonia, thinner or mineral spirits. Double

If a **finish in colour** is desired, you can choose products from this table:

Order	1	2	3	4			5		6	
Area	Double Coat degreaser	Variopox injection resin	Variopox impregnating resin	Variopox filler	Variopox LG filler	Variopox Finishing filler	Variopox Rolcoating	Uropox HB Rolcoating	Double Coat	Double Coat Anti-slip
WOOD										
Under the waterline		1	2					3		
Above the waterline		1	1						5	
Deck		1	1						5	1
Superstructure		1	1						5	
Behind the panelling		1	1				2			

- = Recommended
- = Optional/if necessary
- 5 = Number of layers when applied with brush or roller

When a transparent finish is desired, one can use Double Coat Dubbel UV, Double Coat Karaat or Jachtlak Polyurethane. Double Coat Karaat is particularly suitable for the restoration of the original colour of discoloured or weathered wood or to accentuate the colour of new wood.

The best adhesion of a transparent coating system is achieved by first using a layer Variopox Injection resin as a base. Sand this layer well after drying and then continue with Double Coat Karaat, Double Coat Dubbel UV or Double Coat Cabin Varnish. The adhesion and durability of this system remain dependent on the quality and age of the wood.

For a **transparent finish** following products may be used:

Order	1	2	3	4	5
Area	Variopox injection resin	Double Coat Karaat	Double Coat Dubbel UV	Double Coat Cabin Varnish	Jachtlak PU
WOOD					
Transparent	1		5		
Transparent, Karaat	1	2	3		
Transparent, interior	1			4	
Transparent, 1K					5

= Recommended

= Optional/if necessary

5 = Number of layers when applied with brush or roller



IJmopox

products



IJmopox - available as:

- **IJmopox** ZF Primer
- **IJmopox** HB Coating
- **IJmopox** Thinner

IJmopox products are low-solvent, two-component epoxy products that are easy to apply by brush, roller or spray. The following applications of this product are possible:

Applications

Polyester – filling primer for microporosity

Weathered and old polyester can have small holes the size of pinheads, called microporosity. If a microporous substrate is coated, small bubbles arise in the paint. IJmopox ZF fills these small holes

and provides a good base for further application with Double Coat.

Polyester – for the repair of crackle

Old polyester may have hairline cracks and crackle. This damage is difficult to repair. Ijmopox ZF primer, applied with a brush and then further applied with a rubber spatula, fills this crackle and creates a smooth surface for further application with Double Coat.

Polyester – repair for osmosis

If polyester under the waterline shows serious signs of osmosis, the gelcoat must be completely removed. After cleaning, rinsing and drying, a layer of Variopox Injection resin may be applied as an adhesive layer, especially if the glass fibres are exposed on the surface. If in doubt seek advice from your dealer. After sanding five layers of Ijmopox HB coating will provide good protection against osmosis.

Polyester – prevention of osmosis

When a polyester hull is submerged in water over a long period of time, blisters may form, called osmosis. After thoroughly degreasing and sanding, four layers of Ijmopox HB coating offers enough protection to prevent osmosis.

Steel or aluminium – primer for the prevention of corrosion

As an anti-corrosion primer Ijmopox ZF primer is ideal for pre-treated steel and pre-treated aluminium. This primer prevents corrosion and works as an adhesion layer for intermediate layers such as Ijmopox HB coating.

Wood – protection under the waterline

Ijmopox HB Coating is suitable as a protective barrier under the waterline for different types of wood. Ijmopox HB Coating is a high solids coating, with which rapidly film thickness can be built up.



Product overview

IJmopox ZF Primer



Anti corrosion two-component epoxy primer for steel and aluminium. Due to its good filling properties IJmopox ZF primer is also used for polyester surfaces with microporosity.

Features

- Excellent adhesion
- Can be applied at low temperatures
- Prevents corrosion

Additional information

Suitable for	Polyester, steel and aluminium and various composites
Mixing ratio	Base : Hardener = 4 : 1 (volume)
Application temperature	5 to 25 °C
Pot life	8 hours
Touch dry after	2 hours
Next coat after	15 hours
Colour	White
Spreading rate	6 to 11 m ² per litre per coat
Thinner	IJmopox thinner
Packaging	Sets of 750 ml, 5 l and 20 l

IJmopox Thinner



Special thinner, which is to be used for diluting IJmopox ZF primer and IJmopox HB coating. Further, IJmopox Thinner is ideal for cleaning brushes, rollers and spray guns that were used during application.

Additional information

Packaging	500 ml, 1000 ml and 5 l
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Ijmopox HB Coating

High quality epoxy coating with a high solids content. Steel and aluminium should be pre-treated first with Ijmopox ZF primer. Pre-treat wood with Variopox injection resin. Suitable for the prevention or repair osmosis on polyester boats.

Features

- High solids
- Can be applied at low temperatures
- Long pot life

Additional information

Suitable for	Polyester, wood, steel, aluminium and various composites
Mixing ratio	Base : hardener = 3 : 1 (volume)
Application temperature	5 to 25 °C
Pot life	5 hours
Touch-dry after	2 hours
Next coat after	8 hours
Colours	White, black or grey , RAL-colours on request
Spreading rate	5 to 12 m ² per litre per coat
Thinner	Ijmopox thinner
Packaging	Sets of 750 ml, 4 l and 20 l



Ijmopox Felt Roller

Special Felt roller for applying Ijmopox HB Coating or Ijmopox ZF primer.

Features

- Professional roller
- for a smooth finish

Additional information

Packaging	Set of 2 pieces, box with 10 pieces
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Variopox

Products



Variopox - available as:

- **Variopox** Injection resin
- **Variopox** Impregnating resin
- **Variopox** Universal resin
- **Variopox** Rolcoating
- **Variobond**
- **Variopox** Filler
- **Variopox** Finishing filler
- **Variopox** LG filler

Epoxy resins are extremely versatile in their applications. They are used for preservation, restoration, filling, finishing, laminating and bonding. Epoxy materials are indispensable in the new construction and for the repair and maintenance of ships and yachts.

Applications

As epoxy materials do not contain solvents, one can use these materials for nearly all surfaces. All Variopox materials consist of two components that must be mixed together immediately before

use. The hardener component is critical for the characteristics of the final material after curing.

Wood – conservation

Because of its excellent water vapor impermeability epoxy resins provide wood good protection. Highly absorbent wood species can be pretreated with Variopox Injection resin. This product penetrates deep into the wood and contributes to a good preservation. Usually one layer of Variopox Injection resin is applied on wood before further coating. After bonding (with epoxy glue) or after another processing step one to two layers of Variopox Impregnating resin or Variopox universal resin are needed for complete preservation. Next you can paint the wood with a UV resistant, transparent or coloured Double Coat.

Wood – restoration

Wooden boats which after years have wood rot in some places may be repaired very effectively using epoxy resin. Remove the old damaged wood carefully until you reach good wood. It is important to let the surface dry completely. Next the wood is

saturated with Variopox Injection resin, after which the original part is formed again with Variobond. If a large surface had to be removed, you can glue new wood to the existing wood as an alternative to Variobond. This new wood is preserved with Variopox injection resin.

All surfaces – behind the panelling

For the treatment of laminated glass fibres, bilges, sanitation areas, floors and areas behind the ship's wood paneling we developed a multi-purpose epoxy coating. Variopox Rolcoating is a light thixotropic, solvent-free two-component coating. Variopox Rolcoating is easy to apply with a roller also suitable in poorly ventilated areas. Variopox Rolcoating is resistant to water, oil, grease, petrol and other chemicals. In order to achieve good adhesion to the substrate, it is necessary to pretreat steel and aluminium with IJmopox ZF primer. Porous surfaces are sealed best with Variopox Injection resin. When exposed to UV-radiation discoloration and chalking occurs.

Variopox filler

For all work, whether it is repair or new construction, a suitable Variopox filler is available. Each variety of filler has specific features and applications. The differences between the fillers relate primarily to their sandability, application features and grain size. Variopox Finishing filler is characterized by the high quality that can be achieved during application. The disadvantage of this filler putty is its poorer sandability. Variopox LG filler is excellent for working with a straight-edge. After complete drying it can be sanded well, but it has a coarse structure. Because of these features Variopox LG filler is very well suited to equalize large surfaces above the water line. Variopox Filler has the best features of both. This makes it a general purpose filler which is suitable for large and small repairs.





All surfaces – small repairs

Variopox Filler works best for repairing minor damages or the filling of small holes. Variopox Filler is available in a small pack size, has excellent application features and can be sanded well. Repairs under and above the water line can be made with Variopox filler putty.

All surfaces – large repairs

Larger repairs can be effectively carried out with Variopox Filler. To achieve an optimum operating life we recommend that you always treat the repaired areas with IJmopox HB Coating after filling. This is often necessary for small repairs as well.

All surfaces – new construction and complete renovation

When you have to smooth out the whole hull or a very large repair must be filled, it is then best to use a combination of fillers. After the application of several layers of Variopox LG filler, the filler must be sanded smooth and in shape. In order to achieve a smooth surface, Variopox Finishing filler can be used as the last filler layer. After buffing the surface must be finished with a layer of IJmopox HB Coating. We recommend you use as little filler as possible under the waterline.

Product overview

Variopox Injection Resin



A high-quality two-component primer. Used as the first layer on porous surfaces, including under the waterline. Contains no solvents.

Features

- Easy to apply
- Highly water resistant
- Improves adhesion of Variopox Impregnating resin, Variobond, Ijmopox HB Coating, etc.

Additional information

Suitable for	Polyester, wood and woodcore
Mixing ratio	Base : hardener = 2 : 1 (by weight)
Application temperature	15 to 25 °C
Pot life	30 minutes
Touch-dry after	6 hours
Next coat after	24 hours
Spreading rate	4 to 8 m ² per kg per layer
Packaging	Sets of 750 ml and 7½ kg



Variopox Impregnating Resin

High-quality two-component epoxy system. To be used as a resin for bonding, preserving and laminating. Contains no solvents.

Features

- Easy to apply
- Highly water resistant
- Can be recoated with Ijmopox HB Coating or Double Coat.

Additional information

Suitable for	Polyester, wood and woodcore
Mixing ratio	Base : hardener = 2 : 1 (by weight)
Application temperature	15 to 25 °C
Pot life	20 minutes
Touch-dry after	4 hours
Next coat after	24 hours
Spreading rate	6 to 8 m ² per litre per layer
Packaging	Sets of 750 ml and 7½ kg



Variopox Universal Resin

A universal two-component epoxy system. Used as a universal system for bonding, preserving and laminating. Contains no solvents. A practical set with two small dosing pumps is sold separately.

Features

- Easy to apply
- Highly water resistant
- Can be recoated with IJmopox HB Coating or Double Coat.

Additional information	
Suitable for	Polyester, wood and woodcore
Mixing ratio	Base : hardener = 2 : 1 (by weight or volume)
Application temperature	15 to 25 °C
Pot life	20 minutes
Touch-dry after	4 hours
Next coat after	24 hours
Spreading rate	6 to 8 m ² per litre per layer
Packaging	Sets of 1500 ml and 7500 ml



Variobond

Drip-free two-component epoxy resin. For the permanent bonding of various materials. Contains no solvents.

Features

- Excellent adhesion
- Easy to apply
- Highly water resistant

Additional information	
Suitable for	Polyester, wood, steel, aluminium and various synthetics
Mixing ratio	Base : hardener = 2 : 1 (by weight or volume)
Application temperature	15 to 25 °C
Pot life	40 minutes
Touch-dry after	2 hours
Next coat after	24 hours
Colours	Opal or mahogany
Spreading rate	Depending on application
Packaging	265 ml. cartridge, sets of 1000g. and 7½ kg



Variopox Rolcoating

Multi-purpose two-component epoxy coating. Used as a coating for various applications such as floors, tanks and in the engine room. Contains no solvents.

Features

- Excellent adhesion
- Easy to apply with brush or roller
- Highly water resistant – good levellings

Additional information

Suitable for	Polyester, wood, steel, aluminium und woodcore
Mixing ratio	Base : hardener = 4 : 1 (by weight)
Application temperature	15 to 25 °C
Pot life	30 minutes
Touch-dry after	4 hours
Next coat after	24 hours
Colours	Light grey
Spreading rate	6 to 8 m ² per litre per layer
Packaging	Sets of 750 ml or 5 kg



Variopox Filler

Two-component epoxy filler. For small repairs, also under the waterline. Contains no solvents.

Features

- Excellent adhesion
- Easy to apply
- Highly water resistant

Additional information

Suitable for	Polyester, wood, steel, aluminium and various synthetics
Mixing ratio	Base : hardener = 2 : 1 (by weight or volume)
Application temperature	15 to 25 °C
Pot life	30 minutes
Touch-dry after	2 hours
Next coat after	48 hours
Colours	Light green
Spreading rate	Depending on application
Packaging	Sets of 1000g. and 5 kg



Variopox Finishing Filler

Two component epoxy filler. Recommended as final filler and for minor repairs under the water line. Contains no solvents.

Features

- Excellent adhesion
- Easy to apply
- Highly water resistant

Additional information

Suitable for	Polyester, wood, steel, aluminium and various synthetics
Mixing ratio	Base : hardener = 2 : 1 (by weight or volume)
Application temperature	15 to 25 °C
Open time	30 minutes
Touch-dry after	2 hours
Next coat after	48 hours
Colours	Cream
Spreading rate	Depending on application
Packaging	265 ml cartridge, sets of 5 kg



Variopox LG Filler

Two-component epoxy lightweight putty. To use as a filler. Contains no solvents.

Features

- Excellent adhesion
- Easy to apply
- Highly water resistant
- Easy to sand

Additional information

Suitable for	Polyester, wood, steel, aluminium and various synthetics
Mixing ratio	Base : hardener = 2 : 1 (by weight or volume)
Application temperature	15 to 25 °C
Pot life	30 minutes
Touch-dry after	2 hours
Next coat after	48 hours
Colours	Light grey
Spreading rate	Depending on application
Packaging	Sets of 5 litres



Variopox Twill Fabric

A special fabric of glass fibre to make an epoxy laminate.

Features

- Easy to apply with Variopox Impregnating resin or Variopox Universal resin
- Can be recoated with IJmopox HB Coating, Double Coat, etc.

Additional information

Suitable for	Polyester and wood, reinforcing various surfaces
Weight	160 or 280 g/m ²
Packaging	1, 5 or 20 m ²



Variopox Glassfibre Tape

A fabric tape for the reinforcement of corner joints, applied with or without Variobond.

Features

- Easy to apply with Variopox Impregnating resin or Variopox Universal resin
- Can be coated with IJmopox HB Coating, Double Coat, etc

Additional information

Suitable for	Wood, strengthening various corner joints, edges
Weight	260 g/m ²
Packaging	5 or 20 metre rolls, 10 cm width

Variopox Nylon Roller



Specially selected nylon roller for the application of Variopox Impregnating resin, Variopox Universal resin or Variopox Rolcoating.

Features

- Professional roller
- Provides a smooth finish

Additional information

Packaging	Set with 2 pieces, box with 10 pieces
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Poltix

Products



Poltix - available as:

- **Poltix** Repair Set
- **Poltix** Laminating Resin
- **Poltix** Fibre Filler
- **Poltix** Super Filler
- **IJmofix** Filler Putty

Under the generic brandname Poltix De IJssel Coatings offers a range of products based on unsaturated polyester resin.

Applications

Polyester and steel – small repairs

Minor damages to a boat can easily be repaired with Poltix fillers. If it is minor damage, or if small holes must be filled, then Poltix Fibrefiller works well. This filler contains glass fibres that reinforce the surface next to the filling. The repair can

then be completed using Poltix Super filler (grey) or IJmofix (white).

Polyester – repairing scratches and cracks

Through stress on one point small cracks can arise in the polyester gelcoat in certain places. These are best sanded and then filled with the fine, white IJmofix filler. If it is not possible to sand out this damage one can also use IJmopox ZF primer for the repair. Using a rubber spatula or squeegee, rub the IJmopox ZF primer into the damaged area. In both cases this creates a good basis for further application with Double Coat.

Polyester – repair with poltix laminating resin

A small or large hole in a polyester boat can be easily filled with the help of Poltix Laminating resin in combination with a Poltix Glassmat. If the fibres and polyester resin have separated from one another through damage, it is called delamination. When repairing, these areas must be removed. Then, with the help of Poltix materials, one can again build up a “healthy” piece of polyester laminate. Minor repairs can be carried out with the Poltix repair set, a practical set consisting of resin, glass mat, spatula and mixing cup.



Product overview

Poltix Repair Set



Repair kit consisting of polyester resin with hardener, a glass mat, a mixing cup and spatula. Excellent for small repairs of polyester boats, tanks, caravans, spoilers etc.

Features

- Fast curing
- Minimal shrinking
- Good adhesion

Additional information

Suitable for	Polyester, steel and various polymers
Mixing ratio	Base : hardener = 100 : 1 (by weight)
Application temperature	15 to 25 °C
Potlife	15 minutes
Touch-dry after	25 minutes
Next coat after	24 hours
Spreading rate	Depending on application
Packaging	Sets of 250 ml including glass mat and hardener

Poltix Laminating Resin



A universal polyester resin. In combination with glass fibre reinforcement material suitable for the repair of polyester products, such as boats, tanks, spoilers, etc.

Features

- Fast curing
- Excellent in combination with glass fibre

Additional information

Suitable for	Polyester
Mixing ratio	Base : hardener = 100 : 2 (by weight)
Application temperature	15 to 25 °C
Pot life	15 minutes
Touch-dry after	25 minutes
Next coat after	24 hours
Colours	Semi-transparent
Spreading rate	Depending on application
Packaging	Sets of 750 ml



Poltix Fibre Filler

A filler with fiberglass reinforced polyester. Excellent for repairing large holes in polyester boats, tanks, caravans, spoilers etc.

Features

- Fast curing
- Minimal shrinking
- To be finished with Poltix Super filler or Ijmofix

Additional information	
Suitable for	Polyester, wood and steel
Mixing ratio	Base : hardener = 100 : 3 (by weight)
Application temperature	15 to 25 °C
Pot life	6 minutes
Touch-dry after	10 minutes
Next coat after	24 hours
Colours	Yellow
Spreading rate	Depending on application
Packaging	Sets of 500 and 1000g



Poltix Super Filler

Multi purpose polyester filler for general use. Excellent for repairing polyester boats, tanks, caravans, spoilers etc.

Features

- Fast curing
- Minimal shrinking
- An be overpainted with various coating systems
- Fast and easy to sand.

Additional information	
Suitable for	Polyester, wood, steel and diverse synthetics
Mixing ratio	Base : hardener = 100 : 2 (by weight)
Application temperature	15 to 25 °C
Pot life	6 minutes
Touch-dry after	10 minutes
Next coat after	24 hours
Colours	Grey
Spreading rate	Dependent on application
Packaging	Sets of 500 and 1500g



IJmofix

Fine polyester-based filler as finishing filler. IJmofix is developed specifically when recoating with with light shades of Double Coat.

Features

- Fast curing
- Minimal shrinking
- Can be overpainted with various coating systems
- Fast and easy to sand

Additional information

Suitable for	Polyester, wood, steel and diverse synthetics
Mixing ratio	Base : hardener = 100 : 2 (by weight)
Application temperature	15 to 25 °C
Pot life	6 minutes
Touch-dry after	10 minutes
Next coat after	24 hours
Colours	White
Spreading rate	Dependent on application
Packaging	Sets with 500 and 1500g



Poltix Glass Mat

A powder-bound glass mat for the production of laminates in combination with Poltix laminating resin.

Features

- Easy to model
- Compatible with Poltix laminating resin

Additional information

Suitable for	Polyester
Weight	225, 300 or 450 gram/m ²
Packaging	1 or 5 m ²



Poltix Brush

Brush for one-time use for the application of Poltix laminating resin. Also suitable for the application of Double Coat, IJmopox or Variopox products.

Features

- Handle is not painted
- For single use, but can also be cleaned

Additional information	
Suitable for	Polyester, epoxy or polyurethane
Width	1, 2 or 3 inch
Packaging	12 brushes

DOUBLE COAT

Products



Double Coat - available as:

- **Double Coat**
- **Double Coat** Dubbel UV
- **Double Coat** Karaat
- **Double Coat** Antislip powder
- **Double Coat** Cabin Varnish

Under the brand name Double Coat De IJssel Coatings offers a complete range of finishing coats and complementary products.

Applications

Polyester – coating system

Double Coat can be applied directly on polyester without primer or adhesion promotor. Only a surface preparation of degreasing and sanding with grit paper is necessary. When the polyester substrate is only discolored, one or two layers of Double Coat are usually sufficient. If you have

repaired or used fillers, then we recommend two to three layers of Double Coat. It is advisable to touch-up repaired spots first with IJmopox ZF primer or IJmopox HB Coating. For small repaired spots a touch-up with Double Coat is sufficient. Microporosity and crackle in the gelcoat must always be pre-treated with IJmopox ZF primer or IJmopox HB coating before being coated with Double Coat.

Steel – perfect finish

Double Coat is used in two-component coating system for steel. Three layers of Double Coat applied in combination with IJmopox ZF primer and IJmopox HB Coating offer enough protection and will result in a finish with high scratch resistance and exceptionally good gloss and colour retention.

Wood – finish in colour or transparent with double coat

Wood can be coated with the Double Coat system in colour, as transparent varnish or Karaat. Dilute the first two layers with 10% to 15% Double Coat Brush thinner and sand well between the layers.

Alternatively, one can also opt for one layer of Variopox injection resin. The wood grain texture is thus filled faster. Next, apply four to five layers of Double Coat as colour, transparent or Karaat to achieve a good filling and high gloss result. If you wish to paint an interior with a transparent varnish, you can opt for Double Coat Cabin Varnish.

All surfaces - double coat antislip

Sometimes one may want to make ship decks, footbridges or stairs slip-resistant. Double Coat antislip powder is easy to add to Double Coat. After mixing, you can apply the paint directly with a roller and thus to achieve a beautiful, uniform non-slip surface. After complete curing a safe walking surface is the result.

Variopox – uv protection

Because epoxy resin is not resistant to the influence of direct sunlight, a finish with Double Coat improves the durability of the paintsystem considerably. Variopox resins can be painted with Double Coat in colour or with Double Coat Karaat. A frequently occurring problem with epoxy resin is a greasy surface layer. These must be removed with water and cleaning vinegar and then sanded with 180 grit paper. The epoxy substrate must be fully cured and should be at least two weeks old before the Double Coat system can be applied.



Product overview

Double Coat



A high-quality two-component polyurethane paint for all applications where high demands are made in terms of scratch resistance and durability of gloss.

Features

- Very scratch resistant
- Colourfast
- Excellent flow
- Long gloss retention

Additional information	
Suitable for	Polyester, wood, steel, aluminium and various composites
Mixing ratio	Base : hardener = 2 : 1 (by weight)
Application temperature	15 to 25 °C
Potlife	4 to 6 hours
Touch-dry after	2 hours
Next coat after	24 hours
Spreading rate	10 to 12 m ² per kg per layer
Colours	27 standard colours
Thinner	Double Coat brush thinner, Double Coat spray thinner
Packaging	Sets with 500g, 1000g and 7 ½ kg



Double Coat Dubbel UV

A high quality, transparent two-component polyurethane varnish for applications where a high scratch resistance and gloss retention is required.

Features

- Very scratch resistant
- Colourfast
- Excellent flow
- Long gloss retention
- UV protection

Additional information	
Suitable for	Wood
Mixing ratio	Base : hardener = 3 : 1 (by weight or volume)
Application temperature	10 to 25 °C
Pot life	2 to 3 hours
Touch-dry after	2 hours
Next coat after	24 hours
Spreading rate	12 to 14 m ² per litre per coat
Thinner	Double Coat brush thinner, Double Coat spray thinner
Packaging	Sets of 750 ml



Double Coat Karaat

A transparent pigmented two-component polyurethane varnish for applications where a high scratch resistance and gloss retention is required. Specially developed to restore and brighten discoloured and wheatered wood or to enhance the colour of new wood.

Features

- Very scratch resistant • Colourfast • Excellent flow • Long gloss retention
- UV protection

Additional information

Suitable for	Wood
Mixing ratio	Base : hardener = 3 : 1 (by weight or volume)
Application temperature	10 to 25 °C
Pot life	2 to 3 hours
Touch-dry after	2 hours
Next coat after	24 hours
Spreading rate	12 to 14 m ² per kg per layer
Colours	Teak, mahogany or light oak
Thinner	Double Coat brush thinner, Double Coat spray thinner
Packaging	Sets of 750 ml



Double Coat Degreaser

Special degreaser for cleaning surfaces before the Double Coat paint system is applied. Also suitable for removing oil, grease and tar without impairing the gelcoat.

Features

- Strong degreasing features • Slow evaporation

Additional information

Packaging	500 ml, 1000 ml and 5 litre
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Double Coat Cabin Varnish

A high quality, transparent two-component water based polyurethane varnish with excellent scratch resistance and a beautiful silky lustre for interior applications.

Features

- Very scratch resistant • Non-yellowing • Excellent flow • Silky lustre
- For interior applications • UV

Additional information

Suitable for	Wood
Mixing ratio	Base : hardener = 6½ : 1 (by weight or volume)
Application temperature	10 to 25 °C
Pot life	2 to 3 hours
Touch-dry after	30 minutes
Next coat after	3 hours
Spreading rate	10 to 12 m ² per litre per coat
Thinner	Not applicable
Packaging	Sets of 750 ml



Double Coat Brush Thinner

A special thinner for diluting Double Coat products when applied by brush or roller. Double Coat brush thinner is also suitable for cleaning brushes and rollers that were used during the application.

Additional information

Packaging	500 ml, 1000 ml and 5 litre
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Double Coat Antislip Powder

The powder can be added directly to Double Coat, Double Coat Dubbel UV or Double Coat Karaat if a non-slip profile is required.

Features

- Colourless
- Permanent anti-slip features
- Not sharp

Additional information

Suitable for	All Double Coat products
Mixing ratio	50g is sufficient for 1000g Double Coat
Packaging	50g and 1000g



Double Coat Foam Roller

Special foam roller for applying Double Coat, Double Coat Dubbel UV, Double Coat Karaat or Double Cabin Coat Varnish.

Features

- Professional roller
- For a smooth surface

Additional information

Packaging	Set of 2 pieces, box with 10 pieces
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Jachtlak High Gloss PU

Traditional modified alkyd resin based varnish. One component system.

Features

- Easy to apply
- High gloss
- Scratch resistant

Additional information

Suitable for	Wood
Application temperature	5 to 25 °C
Touch-dry after	3 hours
Next coat after	16 hours
Colours	transparent
Spreading rate	8 to 10 m ² per litre per coat
Thinner	Terpentine
Packaging	1000 ml
Verpakking	Sets van 750 ml



Jachtlak Silk gloss PU

Traditional modified alkyd resin based varnish. One component system.
For interior use.

Features

- Easy to apply
- Silky lustre
- Scratch resistant

Additional information

Suitable for	Wood
Application temperature	5 to 25 °C
Touch-dry after	3 hours
Next coat after	16 hours
Colours	Transparent
Spreading rate	8 to 10 m ² per litre per coat
Thinner	terpentine
Packaging	1000 ml
Verpakking	Sets van 750 ml

Practical tips

Preparation

Good preparation is the first step. Check the surface condition and determine the best pretreatment. Make a planning for all necessary steps and select the best paint system. Read the product information and the instructions for use. Organize your work so you do not mix up the hardeners of each product.

Pretreatment

The pretreatment of the surface is a critical factor for success. For the removal of old layers of paint you can use scrapers. These should be sufficiently sharp, but avoid sharp edges on triangular scrapers, round these edges. This will prevent deep scratches or other damage to sensitive polyester or wood surfaces.

Old one-component layers of paint can be removed with a paint remover or stripper or with a heat gun. Some surfaces such as polyester or epoxy laminates may be damaged by this process.

Two-component products can not be removed

with a paint remover. These can be removed by sanding or blasting. Gritblasting should be carried out by a specialized company.

We do not recommend applying two-component products over old one-component paint. This can lead to unexpected damage such as blistering, crackle or loss of adhesion. If one is not certain whether the old paint layer consists of one or two component paint, one can determine this by a simple test. Lay a cloth with Double Coat degreaser for some minutes on the surface to be tested and let it soak in. If after 15 minutes the old layer is soft, easy to scratch off or is dissolved, then it is one-component paint. In that case it is not possible to apply a two-component paint on such a surface.

For the sanding, you can use different kinds of gritpaper. The grain size depends on the product and the surface. For the data for dry sanding see the table below:

Grit/grain size	Suitable for
P24 - P36	Sanding steel, before IJmopox ZF Primer is applied
P60	Sanding polyester gelcoat before bonding with epoxy materials
P60 - P80	<ul style="list-style-type: none"> Removal of old paint layers Sanding of aluminium, before IJmopox ZF Primer is applied.
P120	<ul style="list-style-type: none"> Sanding polyester gelcoat before repairing with filler Sanding of Variopox Injection resin, Variopox Impregnating resin and Variopox universal resin

Grit/grain size	Suitable for
P120 - P180	<ul style="list-style-type: none"> • Sanding wood after the first paint layer • Sanding epoxy fillers • Sanding polyester fillers • Sanding IJmopox ZF primer and IJmopox HB coating between each coat
P180 - P220	<ul style="list-style-type: none"> • Sanding of Variopox Injection resin, Impregnating resin and Universal resin • Sanding new primers before applying the final coat
P220 - P280	Sanding polyester gelcoat before applying Double Coat
P320 - P400	Sanding of Double Coat between each coat
P600	Sanding of Double Coat before application of the final coat Double Coat in dark colours such as dark blue and red
Finer than P600	Removal of dull spots before polishing

In addition to dry sanding a surface can be wet-sanded with waterproof sandpaper. In that case other grit sizes apply, please contact your supplier. After wet-sanding allow the surface to dry at least a day before painting. An anti-fouling should always be wet sanded to avoid dust as much as possible.

Workshop

Work in a workshop without draughts and free from dust and moisture. Never apply in direct sun or in humid conditions. Under excessive humidity two-component paints may lose their gloss or develop white spots during drying. The ideal application temperature is between 15 and 25°C. Also make sure that the temperature of the surface to be painted is not very different from the ambient temperature. If the surface is too cold, condensation can occur and this has adverse consequences for the quality of the paintwork.

If you work outdoors, do not work in the late afternoon with Double Coat. In the evening the temperature drops and humidity increases. This may result in dull and white spots.

Film thickness and protection

Not only the right combination of materials is

important to achieve a long-lasting protection of your boat, the number of layers and the total film thickness is also important. Because the film thickness is not always easy to measure, we give in our documentation and a system-guide for each product the average yield per layer per square meter. If you control both the number of layers and the spreading rate per layer, you are sure to achieve the proper film thickness and thus obtain adequate protection.

Application

You must stir the separate components well before use to obtain a homogeneous mixture. The next step is to mix the base with the hardener. In order to achieve a good result, these two components must be mixed in the prescribed ratio. For this purpose use a scale with sufficient accuracy.

From the moment the components are mixed, a chemical reaction between the two components begins. After a certain time, the open time or pot life, the material is no longer usable. Therefore do not prepare more material than you can apply within this open time of the mixture. The pot life depends on the temperature and the amount of material. At high temperatures, or if you mix a large amount of material, the open time will be

shorter. Information about the pot life can be found in our documentation and on the packaging. In addition, the temperature of the mixture may increase by the reaction heat released during the chemical reaction between the two components.

Each product has its specific hardener and its special mixing ratio. Information can be found in our documentation and on the packaging. Therefore do not mix or exchange the hardener and use the correct quantity. An incorrect mixing ratio deteriorates the quality of the final product. After mixing the components it is recommended to pour the mixture directly into another cup and mix again. Some products, such as Double Coat, must rest for a few minutes before they can be applied. This is the so-called induction time. The necessary induction time is mentioned on the label and in the technical datasheet. Pouring the mixture in a shallow paint tray will extend the potlife. And you are able to work longer with the material.

Depending on the working situation, it may be necessary to dilute the mixture of base and hardener. Always use the special thinner prescribed for the product. Other thinners may be incompatible with the mixture or may cause undesired reactions. Products without solvents, like any Variopox product, should never be diluted! If you are applying, for instance, IJmopox HB Coating with a felt roller, adding 10% thinner ensures a smooth result with little orange peel. Less sanding is necessary when this coat is finished with Double Coat.

The surface to be painted can be masked with an adhesive masking tapen. Use preferably a fine tape with low tack, such as Scotch Fine Line. With this tape it is possible to get a sharp line as the tape will prevent paint flowing under the tape. This masking tape is resistant to the solvents

in the two-component products. For the best result, remove the tape immediately after applying the paint.

The temperature at which the materials are to be applied is printed on the can and in the technical documentation. At low temperature, the paint will cure slowly and the material may remain sticky. When the temperature is too high, the pot life will be short. When several layers are applied one after the other, sand between each coat in order to achieve better adhesion. In most cases sanding is not necessary when the next layer is applied within a period of 48 hours. Mechanical sanding may result in heat generation, causing the sandpaper to clog quickly. Make sure in this case that the temperature does not rise too much when sanding.

Tools

Tools can be crucial in determining whether you achieve a good or poor result. Always use good and clean tools when applying our products.

• Brush

A good quality brush pays. Use an oval or flat brush with long, flexible bristles that is suitable for two-component products. When working with polyester materials such as Poltix laminating resin, always use a brush with an untreated handle.

• Roller

For fine painting Double Coat foam rollers with high density (small cells) are most suitable. Short-haired mohair rollers or felt rollers are also suitable. These rollers apply more material with a risk of runs and sags. Before use, wrap short haired rollers first with an adhesive tape to remove loose fibres. Lambswool or nylon rollers are not suitable for fine painting. For primers and intermediate layers, such as IJmopox ZF primer and IJmopox HB Coating, we recommend the IJmopox felt roller. Roll the roller out well before

use. The use of a lambswool or nylon roller causes "orange peel" and lead to unnecessary additional sanding. For Variopox products we recommend our Variopox nylon roller. Special aluminum or teflon de-aerating rollers are available for the air release of polyester or epoxy laminates.

- **Spray**

Application by spray is a professional job. We do not recommend this for do-it-yourself application.

For further information you may contact your technical department.

What is the total surface?

If you do not know the surface area, you can calculate the total surface area using the formulas given below:

Description	Surface in m ² calculated from
Underwater ship (shallow draught with straight keel)	$(\text{waterline length}) \times (\text{width} + \text{draught})$
Underwater ship (medium draught)	$(\text{waterline length}) \times (\text{width} + \text{draught}) \times 0.75$
Underwater ship (deep draught), centreboard and keel)	$(\text{waterline length}) \times (\text{width} + \text{draught}) \times 0.5$
Freeboard	$(\text{total length} + \text{width}) \times (\text{average freeboard height}) \times 2$
Deck	$(\text{total length}) \times \text{width} \times 0.75$
Freeboard height = height from waterline to deck edge	

Further information

Further information can be found on the internet at www.de-ijssel-coatings.nl. Here, amongst other information, you will find a list of answers to frequently asked questions about our products and a list of retailers. Technical information sheets for all the products mentioned in the brochure can be found on the website.

Working safely

Rules for safety and health

Always read the label before starting any paint job. On each label are some warning symbols and texts. These point out at which stages one must be particularly careful when handling the product. All possible risks and the necessary precautions for safe working are on the label.

General tips

A few general rules for safety and health:

1. Read the product label and the instructions concerning personal safety and the environment.
2. Wear appropriate gloves when working with paint, thinners and degreaser.
3. Wear safety glasses.
4. Allow adequate ventilation and/or exhaust ventilation and use a suitable mask, even when sanding.
5. Open cans carefully.
6. Mix the base and hardener of the two-component materials carefully in the correct ratio. Pay attention to possible exothermic reactions in polyester or epoxy materials without solvents.
7. Remove spilled paint immediately.
8. Do not eat or drink in the immediate area of paint or wet paint layers. Do not store food at the workplace.
9. Do not smoke at the workplace.

Personal safety

Ensure that you do not swallow any paint.

You may neither eat nor drink, nor keep food-stuffs at the workplace. If you have accidentally swallowed paint, contact a physician immediately. The patient must rest and **MUST NOT** be brought to vomiting.



Do not inhale fumes. Avoid inhalation of solvents, harmful dust or paint fumes by ensuring adequate ventilation or extraction. If this proves insufficient you must wear suitable respiratory equipment. In poorly ventilated areas wear a full-face or mouth mask. The solvent vapours are heavier than air, thus forcing uncontaminated air upwards.

When inhaling these fumes one may become dizzy, feel drunk or get headaches. Therefore, read the label carefully to be sure that you wear the right protection. Spraying represents additional risks and is therefore not recommended for do-it-yourself applications. Applying paint with a spray gun is work for a professional. The overspray should not be inhaled under any circumstances. Therefore, always wear the recommended pro-

tection. A full head mask with air supply usually provides the best protection.

Avoid contact with eyes. We recommend you to protect your eyes during painting. Protective safety glasses are widely available and recommended in all cases. If, however, paint does get in the eyes, open the eyes with your fingers as much as possible and rinse them for 15 minutes with clean tap water. Consult a physician immediately.

Avoid contact with skin. Contact with coating products may cause skin irritation. Therefore, always wear gloves and protective clothing that cover body, arms and legs. Cover your hands before and after working with a protective hand cream. This will keep your hands in good condition and can prevent skin problems. In addition, a hand cream helps so that the skin is easier to clean after work. Remove coating products on the skin first with a cloth and wash the skin with plenty soap and water afterwards or an approved cleaning agent. Do not clean the skin with solvents or thinner.

Please consult www.doublecoat.nl for the best personal protection.

Fire and explosion hazards

Most paints contain solvents. Some of these substances evaporate when you open the can. If you take a few precautions, you can reduce the risks:

- Avoid open flames in areas where paint is stored or where is paint is applied.
- Do not smoke in the workplace.
- Store paint in well ventilated, dry areas safely away from heat sources and direct sunlight.
- Always close cans well.
- Avoid the possibility of spark formation from metal, when turning electrical devices on or off or from faulty electrical connections.
- Do not leave rags or towels soaked with paint lying around (spontaneous combustion), also not in the pockets of overalls or other work clothes.

Paint and the environment

Dispose of empty cans in the trash. Do not dispose of cans or other waste into water or drainage. Empty cans with paint residues that are not hardened should be disposed as chemical waste. Dispose of used paintbrushes, rollers and paint trays in the right way. Residues of thinners, paint, degreaser and solvents must be disposed of as hazardous waste.

System guide

Introduction

All De IJssel Coatings products are carefully matched so that each combination of products ensures optimal protection against the influences of sun, wind and water.

With our System Guide, you can select in three steps the most appropriate combination of products for the protection of all parts of your boat.

A differentiation is made between the various parts of the boat and the various coating products. The System Guide allows you to calculate instantly how much material you need for the job.

As a matter of course, your Double Coat dealer will be happy to advise you in detail about the application of our materials. We are also happy to advise you about paints online on our website: **www.de-ijssel-coatings.nl**.

In three steps to the best protection

Choose the right protection from our System Guide in three steps:

STEP 1

Select the correct surface: wood, aluminum, steel or polyester. Follow the coloured line of the selected substrate to STEP 2.

STEP 2

Select the part of the boat: under the water line, above the water line, deck, superstructure or interior. Select one of these parts under the coloured line of the substrate. Go to STEP 3.

STEP 3

Select the products. You must always use the recommended products. A suitable product can be used as an alternative or must be used depending on the condition of the substrate. Your Double Coat dealer can advise you about this. A number in the column gives the minimum number of layers.

STEP 1		STEP 2		STEP 3																
Select type of surface		Select area of boat		Select the products																
Surface		Area		Pre-treatment		Primers		Fillers				Buildcoats		Finishes						
WOOD ALUMINIUM	STEEL POLYESTER	Specification	Double Coat degreaser	Variopox injection resin	Variopox impregnating resin	IJmopox ZF Primer	Poltix Super Filler	IJmofix	Variopox Filler	Variopox LG Filler	Variopox Finishing Filler	Variopox Rolcoating	IJmopox HB Coating	Double Coat	Double Coat Karaat	Double Coat Dubbel UV	Double Coat Cabin Varnish	Jachtlak PU		
		Spreading rate each coat		0.20 L	0.30 L	0.14 L						0.08 L	0.10 L	0.10 kg	0.10 L	0.10 L	0.10 L	0.10 L	0.10 L	
		POLYESTER																		
		Osmosis repair		1									5							
		Under the waterline											4							
		Above the waterline				1								3						
		Deck				1								3						
		Superstructure				1								3						
		Behind the panelling										1								
		STEEL																		
		Under the waterline				2							3							
		Above the waterline				1							2	3						
		Deck				1							2	3						
		Superstructure				1							2	3						
		Behind the panelling				1						2								
		ALUMINIUM																		
		Under the waterline				2								3						
		Above the waterline				1								2	3					
		Deck				1								2	3					
		Superstructure				1								2	3					
		Behind the panelling				1														
		WOOD																		
		Under the waterline		1	2									3						
		Above the waterline		1	1										5					
		Deck		1	1										5					
		Superstructure		1	1										5					
		Behind the panelling		1	1								2							
		Transparent		1													5			
Transparent, Karaat		1												2	3					
Transparent, interior		1														4				
Transparent, 1K																	5			

- = Recommended
- = Optional/ if necessary
- 5 = Number of layers when applied with brush or roller



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