

Fastening Products Group

AQUA

**YKK**

*Little Parts. Big Difference.*



AQUA



FREEDOM, YKK!



# AQUA

YKK's range of fastening products  
developed to meet the challenges of water.

Here is a guide to different solutions  
offering different levels of protection.

These products are not afraid of water.  
Each combines high quality YKK fastening performance  
with a range of AQUA applications.

YKK Little Parts. Big Difference.®  
From a water repellent look to fully watertight.

## Legend

*Water performance*



*water repellent look*

*Water performance*



*water repellent treated*

*Water performance*



*water repellent*

*Water performance*



*waterproof*

*Water performance*



*watertight*



**AQUACHEAT®**



**VISLON® PU**



**BOSUBI**



**AquaGuard®**



**AQUASEAL®**



**FLEXSEAL®**



**PROSEAL®**

These products are not afraid of water.  
Each combines high quality YKK fastening performance with a range of AQUA applications.

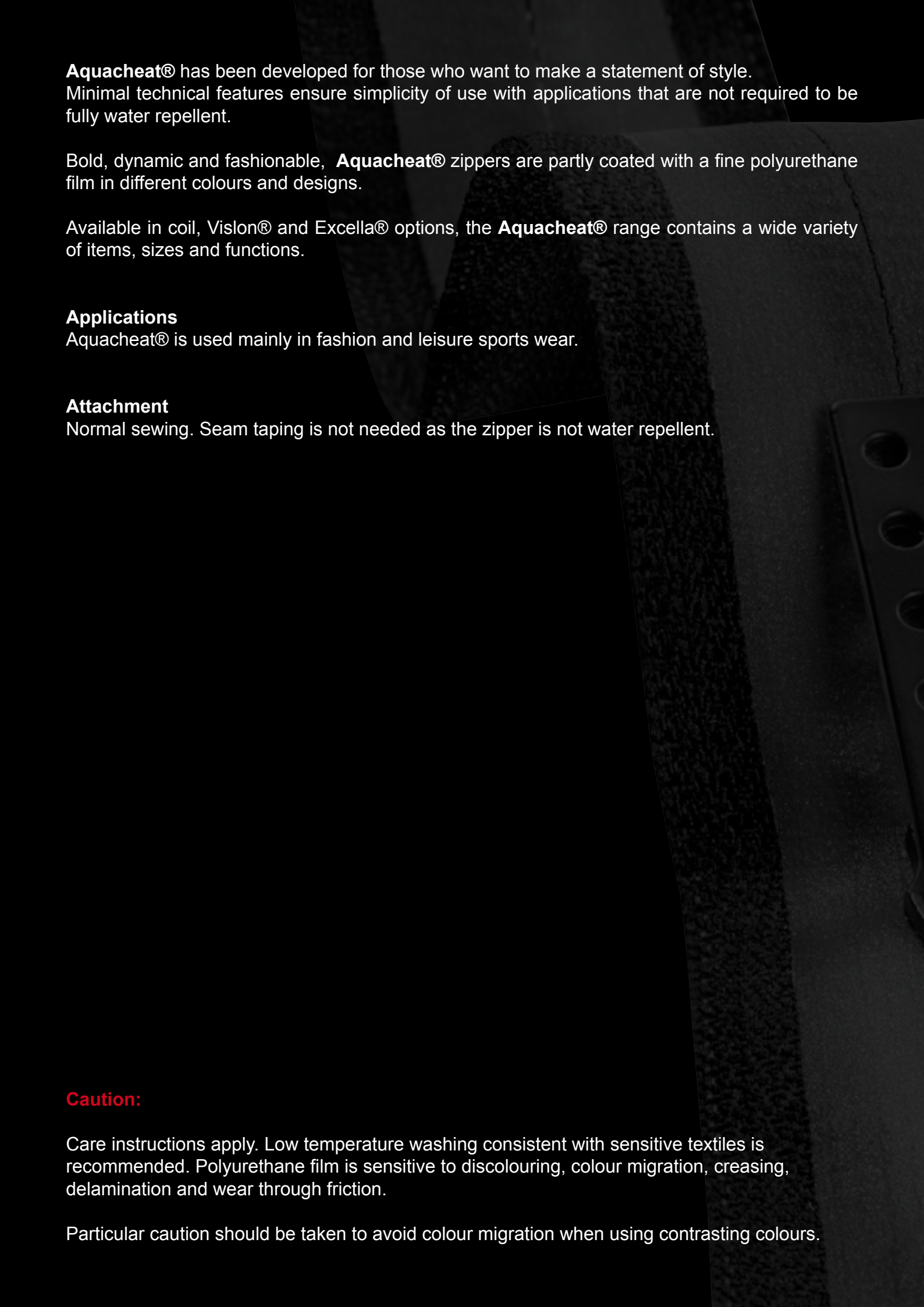
*Water performance*



*water repellent look*



**AQUACHEAT®**



**Aquacheat®** has been developed for those who want to make a statement of style. Minimal technical features ensure simplicity of use with applications that are not required to be fully water repellent.

Bold, dynamic and fashionable, **Aquacheat®** zippers are partly coated with a fine polyurethane film in different colours and designs.

Available in coil, Vislon® and Excella® options, the **Aquacheat®** range contains a wide variety of items, sizes and functions.

### **Applications**

Aquacheat® is used mainly in fashion and leisure sports wear.

### **Attachment**

Normal sewing. Seam taping is not needed as the zipper is not water repellent.

### **Caution:**

Care instructions apply. Low temperature washing consistent with sensitive textiles is recommended. Polyurethane film is sensitive to discolouring, colour migration, creasing, delamination and wear through friction.

Particular caution should be taken to avoid colour migration when using contrasting colours.

*Water performance*



*water repellent look*



**VISLON® PU**

Although not classified as a water repellent zipper, due to the fully coated tape **Vislon® PU** can be used in performance outdoor wear when a sufficient back flap is applied.

Vislon® elements and zipper parts allow smooth operation, with the added polyurethane film restricting water seepage.

**Vislon® PU** colours are matched with AquaGuard® T10 matt finish colours. Similar to the standard Vislon® range, the combi colour combinations, mix different tape and element colours, and offer further options to customize the design.

The item range includes size 5 and 8. Finished zippers are available with most conventional functions.

### **Applications**

In addition to fashion and leisure sports wear, **Vislon® PU** is used in performance outdoor wear.

The weldability of the polyurethane film also allows for technical applications such as medical mattresses.

The use of **Vislon® PU** in luggage applications is not recommended. Suitability for bag applications would need to be confirmed through field testing.

### **Attachment**

In addition to normal sewing, seam taping can be used to improve water repellence.

**Vislon® PU** elements are made of nylon. This reduces melting damage during the taping process.

In some cases, direct welding can be performed depending on material compatibility, welding equipment and settings.

### **Caution:**

Care instructions apply. Polyurethane film is sensitive to discolouring, colour migration, creasing, delamination and wear through friction.

*Water performance*



*water repellent treated*



**BOSUBI**

The **Bosubi** range is based on a durable water repellent and anti-mould treatment. This reduces water seepage, as well as wicking and zipper tape degradation when used in outdoor or maritime environments.

Standard tape colours are available.

**Bosubi** treated items are available in coil and Vislon® options and are supplied in different sizes and functions.

### **Applications**

Typical uses for **Bosubi** treated items are outdoor tents and canopies.

Other applications include bags, life vests and other technical products.

### **Attachment**

Normal sewing, using treated sewing thread in order to prevent leakage through the stitching.

### **Caution:**

Domestic washing restores the water repellent properties. Although durable, Bosubi treatment can wear off over time.

Water may leak through the zipper if tension is applied to its surface.

*Water performance*



*water repellent*



AquaGuard®



Defining standards in water repellency and easy fastening, **AquaGuard®** is the most commonly used zipper solution for quality rain and wind proof outer shell garments. Unlike standard PU coated items, the superior **AquaGuard®** range withstands an extensive rain test and does not absorb moisture.

Available in coil for many years, the **AquaGuard®** range has been extended with a Vislon® version which uses a unique closed element shape enhancing the water repellent performance. The **AquaGuard®** range now offers flat, flexible and tightly finished coil solutions for pockets and ventilation, with smooth Vislon® zipper operation for the front closure fastener.

An extensive range of matt, shiny and solid PU finishes is available. Vislon® **AquaGuard®** combi colours, allow the mixture of different tape and element colours to customize the design.

The **AquaGuard®** family includes many different sizes and functions.

### **Applications**

**AquaGuard®** is commonly used in performance outdoor wear as well as back packs and other light-weight bag applications.

Because of the combination of exceptional water repellency and excellent PU adhesion – offering good weldability with compatible materials – **AquaGuard®** is used in many varied technical applications, from the medical sector to dust control environments.

### **Attachment**

Normal sewing in combination with seam taping is commonly used to create both strength and water repellency. Pocket applications may not require sewing.

In some cases, direct welding can be performed depending on material compatibility, welding equipment and settings.

### **Caution:**

Care instructions apply. Polyurethane film is sensitive to discolouring, colour migration, creasing, delamination and wear through friction.

Particular caution should be taken to avoid colour migration when using contrasting colours.

Vislon® AquaGuard® is not recommended for bags and luggage.

*Water performance*



*waterproof*



**AQUASEAL<sup>®</sup>**

**Aquaseal®** is the light-weight fully waterproof zipper for extreme outdoor, surface water sports and marine safety applications. Combining Vislon® technology with a seal between the zipper elements, **Aquaseal®** allows easy and smooth operation with 100% protection against the elements.

Specified up to 0.05 bar water pressure and available in 2 tape variations – polyester elastomer and polyurethane – **Aquaseal®** offers protection in many different applications.

**Aquaseal®** zippers do not contain metal parts. This makes them ideal for use in salt water environments. The material properties do limit colour and slider puller options.

In addition to a size 10 version, **Aquaseal®** is available in size 5, the world's smallest waterproof fastener in its category. The **Aquaseal®** range contains all standard functions including a W-SEAL version which is sealed at both ends.

### **Applications**

Because no back flap is required, **Aquaseal®** is ideal for high-end outer shell garments.

Other common applications include motor-cycle garments, fishing waders, sailing garments, semi-dry suits, surface abandonment suits and other protective clothing.

**Aquaseal®** can be used to create fully waterproof bags as well as waterproof pockets or compartments, to protect valuables and moisture-sensitive equipment.

Because of its unique properties, **Aquaseal®** is used in a wide range of technical applications in the medical, automotive and aerospace industries.

Tent and shoe applications are not recommended.

### **Attachment**

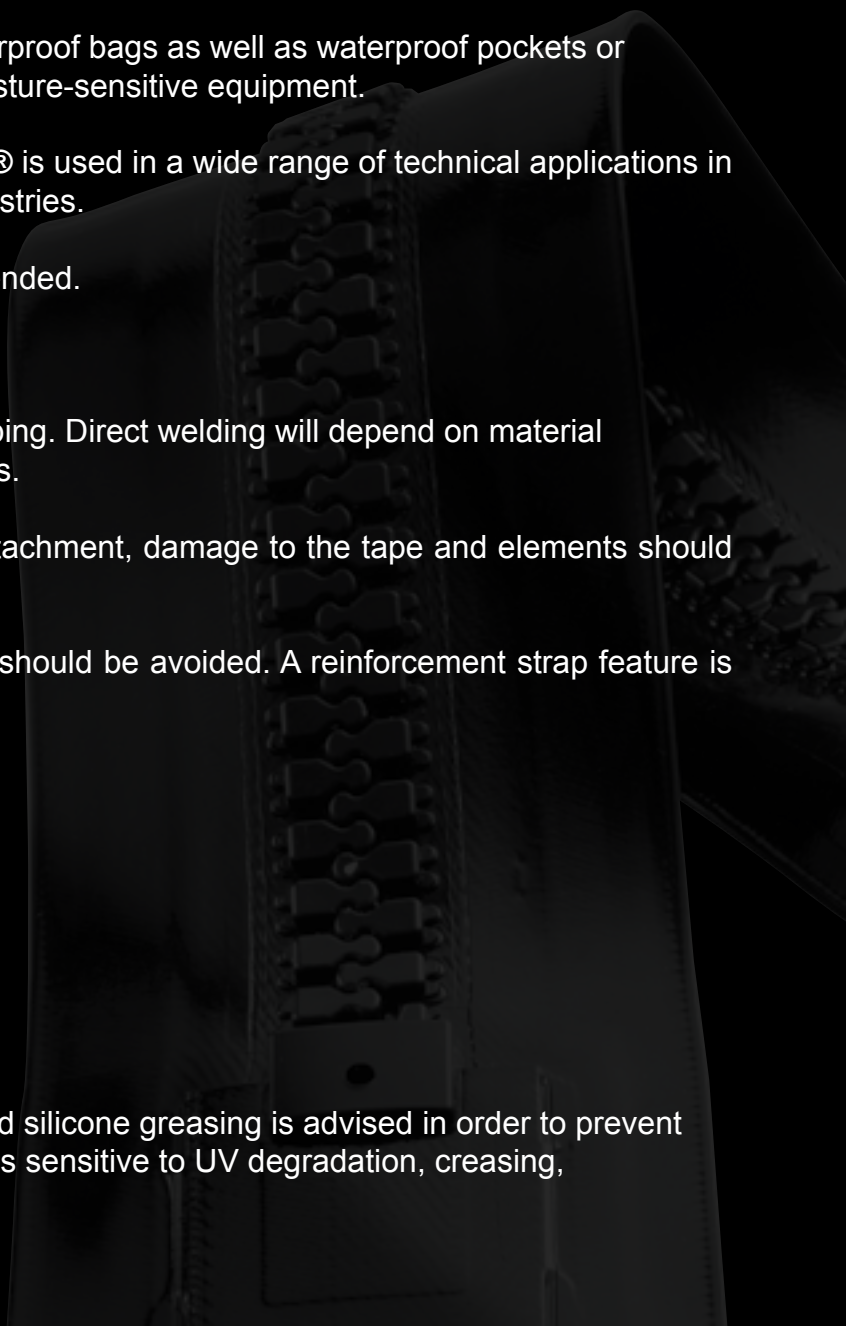
Normal sewing in combination with seam taping. Direct welding will depend on material compatibility, welding equipment and settings.

When applying heat and pressure during attachment, damage to the tape and elements should be avoided.

Overstretching of the top and bottom stops should be avoided. A reinforcement strap feature is available.

### **Caution:**

Care instructions apply. Regular cleaning and silicone greasing is advised in order to prevent damage to the tape and seals. **Aquaseal®** is sensitive to UV degradation, creasing, delamination and wear through friction.



*Water performance*



*waterproof*



**FLEXSEAL®**



Flexseal® is available in Dynat® and YKK® product ranges.

**Flexseal®** has a strong, flexible coil element offering a durable light-weight fully waterproof solution for the most demanding applications.

The extruded fin profile offers protection from the outside and prevents dirt from building up. The polyester coil elements are self-aligning in case of misalignment or the chain bursting open.

**Flexseal®** is specified from 0.05 to 0.4 bar water pressure from the outside and is available in both neoprene and polyurethane versions.

Based on a size 8.5 coil chain and available in a full range of finishes. **Flexseal®** W-SEAL is sealed at the top and bottom. This allows fully sealable compartments to be constructed.

Colour and slider puller options are limited.

### Applications

**Flexseal®** is used in a wide range of heavy duty surface water sports garments, semi-dry suits, surface abandonment suits, protective clothing, bags and technical products.

In some circumstances, **Flexseal®** can be used for tent and shoe applications.

The neoprene version may offer protection against some chemical substances.

### Attachment

**Flexseal®** neoprene: normal sewing in combination with seam taping or gluing.

**Flexseal®** polyurethane: normal sewing in combination with seam taping.  
Direct welding will depend on material compatibility, welding equipment and settings.

Overstretching of top and bottom stops should be avoided when using **Flexseal®**.

### Caution:

Care instructions apply. Regular cleaning and silicone greasing is advised in order to prevent damage to the seals. **Flexseal®** is sensitive to over bending.

It is advisable to close **Flexseal®** when storing.

*Water performance*



*watertight*



**PROSEAL®**

Proseal® is available in BDM®, Dynat® and YKK® product ranges.

**Proseal®** is the ultimate watertight fastening solution. **Proseal®** technology is based on a strong seal pushed tight by nickel silver elements. This offers critical protection against infiltration by many liquids and gases at substantial pressure levels. From the deep sea to outer space, **Proseal®** technology has enabled people to explore new frontiers.

The level of protection is specified from 0.2 to 1.0 bar water pressure, depending on the zipper weight and tape material.

**Proseal®** tape options include neoprene, polyvinyl chloride, polyurethane and fluoroelastomer.

Available in size 4, 8 and 12 and produced in different finishes with limited colour and slider puller options, **Proseal®** offers the definitive solution for a wide range of watertight applications.

### **Applications**

Common **Proseal®** applications include dry suits, survival suits, protective work wear and chemical protection suits.

Being uniquely watertight and gas-tight, **Proseal®** can be used in a diverse range of technical applications in many different industries. From inflatable bouncy castles, to bagpipes, petrol tanks, to protection and storage bags.

Suitability will need to be tested and field trials are recommended.

### **Attachment**

Normal sewing in combination with seam taping and gluing. Direct welding will depend on material compatibility, welding equipment and settings.


Overstretching of top and bottom stops should be avoided.

### **Caution:**

Care instructions apply. Regular cleaning and silicone greasing is advised in order to prevent damage to the elements and sealing properties of the zipper. **Proseal®** is sensitive to over bending.

**Proseal®** should be stored in open position.





For advice about products and services, to place an order,  
or to speak to a local representative,  
please contact your nearest YKK office using the global contacts  
directory on our website.

<http://www.ykkeurope.com/contacts/>

Apart from the unique fasteners in this Aqua catalogue, YKK offers an extensive range of standard  
Zippers, Textile & Plastic and Snap & Button fastening solutions.





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