



– smoked over **beech-wood**

# Smoked fish

Highest quality

World class **food safety**



## Smoked and marinated fish

Royal Greenland has **produced smoked** and marinated fish **since 1988** and **employs staff with over 30 years' expertise** in producing the very best quality. We use only **fish of the highest quality** for our production and follow a strict **HACCP procedure** in every step of the production and the factory is accredited with **IFS higher level**.

Royal Greenland's smoked product assortment has a **very high food safety** and the risk of listeria growth is stabilized for the entire shelf life

- World class **food safety**
- **Highest quality** raw material
- **Hot-** and **cold smoked** varieties
- Carefully and **slowly smoked** over beech wood
- Variety of **Greenland halibut, Atlantic cod and Norwegian salmon**
- Pleasant smoke **flavor**
- Perfect **lean texture**



## Our Greenland halibut and Atlantic cod

Our whitefish comes from our own fisheries in the North Atlantic and Arctic oceans. The quality of this raw material is always very high. The fish are filleted and trimmed right after catch and delivered to the Hirtshals ready for production.

Greenland halibut is a flatfish that has very white and lean fillets without pinbones. The fillets are trimmed free of the frills and used either with or without skin.

Atlantic cod is trimmed similar to the salmon Trim D, where the lean fillet is deboned and all belly fat and skin is removed.

## Our salmon

Our salmon (*Salmo salar*) comes from selected suppliers in Norway, and the quality is always "Superior", which is the best possible quality rating. In Hirtshals, the fish are filleted, the tailpiece is cut off and the pin bones are removed.

The salmon is then trimmed by hand according to specification. We work with three different trims for our smoked salmon production.



### RG - Trim C

- Backbone, bellybone off
- Dorsal fins off
- Collar bone off
- Tail piece off
- Pin bone out

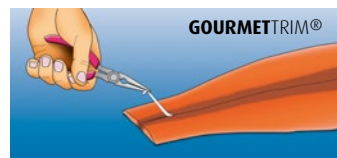


### RG - Trim D

- Backbone, bellybone off
- Dorsal fins off
- Collar bone off
- Tail piece off
- Pin bone out
- Belly fat and fins off
- All belly off
- Fully trimmed - no white fat
- Skin off

### RG - GOURMETTRIM®

- Backbone, bellybone off
- Dorsal fins off
- Collar bone off
- Tail piece off
- Pin bone out
- Belly fat and fins off
- All belly off
- Fully trimmed - no white fat
- Skin off
- **GOURMETTRIM®** - all brown fat and bloodvein removed after de-skinning





# World class food safety

Food safety in lightly preserved products like smoked fish is extremely important, and must be handled with special care. Especially the bacteria *Listeria monocytogenes* is of concern, as it cannot be seen or smelled, but can cause the potentially fatal infection listeriosis.



Through strict quality control, product development and committed research in collaboration with the National Food Institute at the Technical University of Denmark, Royal Greenland has developed a system to obtain world class food safety and minimize the risk of growth by the bacteria *L. monocytogenes* growth in our smoked and marinated products.



Four factors for high food safety

With these four factors under control, it is possible to produce delicious, healthy and safe products with minimal risk of growth by *L. monocytogenes*.



## 1. High quality raw material

Food safety starts with the raw material. Strict quality requirements to our production sites, suppliers and gentle handling of the fish, before it enters the production, gives raw material of the highest quality.

## 2. Daily cleaning

It is obvious that hygiene is crucial in food production. Cleaning is done throughout the day and in between every shift, moreover all machinery is disassembled and cleaned every day.

All processing comply with our self-monitoring program that is based on the HACCP principles (Hazard Analysis and Critical Control Points) - and internal and external auditors regularly control the production environment and the quality of the products.

## 3. Stabilization

Since 2011, Royal Greenland has added naturally occurring organic acids (vinegar-, and/or lactic acid) to stabilize smoked and marinated fish against potential growth of *L. monocytogenes*. Together with the other product features, e.g. pH and salt, the organic acids ensure that bacteria are not able to grow to a critical level. Addition of organic acids does not affect any of the sensory characteristics of the product.

As documentation the Danish Veterinary and Food Administration has issued a declaration stating that the amount of *L. monocytogenes* in smoked products produced at Royal Greenland's factory in Hirtshals cannot multiply to dangerous levels during the product's shelf-life.

## 4. Risk assessment

Our food safety is continuously evaluated and documented according to the procedure recommended by the Danish authorities. This procedure is based on measurements of product characteristics (pH, salt, smoke components and organic acids) combined with the use of predictive models for *L. monocytogenes* included in the Food Spoilage and Safety Predictor (FSSP) software.



## Cold smoked fish

Cold smoking takes place at around 24°C. The longer smoking time the more intense flavor and firmer texture. Cold smoked fish is delicious on the morning buffet, as an elegant starter or in a salad or sandwich.

- Greenland halibut
- Atlantic cod
- Salmon



## Hot smoked fish

Hot smoking takes place at around 68°C. The fish get an intense smoke flavor and a delicious, soft texture. Hot smoked fish can be served both hot and cold and looks great on a buffet, as a flavorful starter, in pasta, salad or sandwich.

- Greenland halibut, whole fillet
- Greenland halibut, portions
- Salmon, whole fillet
- Salmon w. black pepper, whole fillet



## Marinated fish

Marinated or “gravad” fish is a traditional Scandinavian delicacy. The fish is marinated with a blend of delicate spices and dill. The marinade enhances the soft and pleasant texture of the fish and is ideal for cold servings such as salads or sandwiches.

- Marinated Greenland halibut
- Marinated salmon

