



## High Molecular Weight (HMW) Fish Gelatin Food/Pharmaceutical Grade

HMW Fish Gelatin is manufactured by the hydrolysis of collagen which is a principal protein found in skin and bones. Animal gelatin is typically extracted from bovine or porcine skin while HMW Fish Gelatin is produced from the skin of deep water fish such as cod, haddock and pollock. This allows it to have many of the same characteristics of animal gelatin. Since the gelatin is manufactured only from the skins of food grade kosher fish, it is able to meet strict kosher standards.

HMW Fish Gelatin is a Type A gelatin and is supplied as a dry granular product. This gelatin is extracted differently than the standard Fish Gelatin and is lighter in color with a higher average molecular weight. The higher molecular weight will provide a higher viscosity and a tougher film than our standard gelatin. Neither product has bloom strength as the gel point is lower than animal gelatin. This makes it suitable for frozen or refrigerated products or for use as a dry coating. The lower gel point allows Fish Gelatin to dissolve faster and easier than animal gelatin, so it can be readily added to products that are to be chilled.

### TYPICAL PROPERTIES OF HMW FISH GELATIN

<b>Appearance</b>	Granular	<b>Chromium</b>	<10 ppm
<b>Odor as Supplied</b>	None	<b>Lead</b>	<1.5 ppm
<b>Color in Solution</b>	Pale Yellow - Clear	<b>Sulfur Dioxide</b>	<50 ppm
<b>pH of 10% Solution</b>	4.0-7.0	<b>Hydrogen Peroxide</b>	<0 ppm
<b>Solids</b>	85% min.	<b>Aerobic Bacterial Count</b>	<1000/g
<b>Weight Loss on Drying</b>	15% max.	<b>Enterobacteria</b>	Test neg/g
<b>Visc. of 10% Solution @ 30°C</b>	25-35 cSt	<b>Salmonella</b>	Test neg/25g
<b>Bloom</b>	0 g	<b>Escherichia Coli</b>	Test neg/25g
<b>Total Ash</b>	2.0% max.	<b>Yeast and Mold Count</b>	<100/g
<b>Heavy Metals</b>	<10 ppm	<b>Preservatives</b>	No
<b>Arsenic</b>	< 0.8 ppm	<b>Kosher Certification</b>	OU



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**CERTIFICATE OF ANALYSIS**

**FISH GELATIN, OU KOSHER, DRIED  
HIGH MOLECULAR WEIGHT**

**MEETS EU, EP & JP STANDARDS**

**SAMPLE COA FOR SPEC PURPOSES**

**SPECIFICATIONS**

**PRODUCT  
HMWD**

APPEARANCE	GRANULATE
COLOR	1-13
ODOR	NONE
IDENTITY	CORRESPONDS
pH OF 10% SOLUTION	5.0 - 7.0
VISC OF 10% SOLUTION @ 30C	25.0 - 35.0 CS
LOSS ON DRYING	MAX. 13.5%
PROTEIN	AS SHOWN
HEAVY METALS	<20 ppm
ARSENIC	<0.8 ppm
CADMIUM	<0.5 ppm
CHROMIUM	<10 ppm
COPPER	<30 ppm
IRON	<10 ppm
LEAD	<1.0 ppm
MERCURY	<0.15 ppm
ZINC	<50 ppm
HYDROGEN PEROXIDES	<10 ppm
SULFUR DIOXIDE	<50 ppm
TOTAL ASH	MAX 2.0%
AEROBIC BACTERIA COUNT	MAX. 1000/g
YEAST & MOLD COUNT	MAX. 100/g
COLIFORMS @ 30 oC	<3 MPN/g
COLIFORMS @ 44.5 oC	<3 MPN/g
ANAEROBIC SULPHITE-REDUCERS	MAX 10/g
CLOSTRIDIUM PERFRINGENS	<10 CFU/g
ENTEROBACTERIACEAE	<10 CFU/g
ESCHERICHIA COLI	NEGATIVE IN 25 g
SALMONELLA	NEGATIVE IN 25 g
PSEUDOMONAS A.	NEGATIVE IN 10 g
STAPHYLOCOCCUS A.	NEGATIVE IN 10 g

MANUFACTURE DATE:

EXPIRY DATE:

Authorized signature and title:

Date:

Oct 25/17.



**High Molecular Weight Gelatin manufactured by Kenney & Ross, Limited is primarily extracted from the skin of kosher, deep sea cod caught in the North Atlantic Ocean and surrounding seas near the Arctic Ocean. Very small amounts of pollock and haddock which are related species may also be present. The cod, pollock and haddock are generically known as “whitefish”.**

**Shown below are pictures and descriptions of the fish to provide our customers with details about our raw materials.**

## Atlantic Cod

*Scientific name: Gadus morhua*

Japanese name: *tara*



The cod is streamlined and slender, with a large head and a large mouth, situated in the lower half of the head. Its color varies depending on age and environment. Most commonly, it sports a yellow-grey color on its back and upper flanks, sprinkled with small dark spots. The tone grows lighter, closing in on the abdominal area which, in turn, is completely white. The cod is a demersal fish, thriving in various depths.

## Atlantic Pollock

*Scientific name: Pollachius virens*

Japanese name: *porakku*



The Atlantic pollock is related to the cod and haddock. Often known commercially as Boston bluefish, it is also called merlan, colin, saithe, and coalfish (particularly in the United Kingdom). It differs in appearance from others in the cod family by having a pointed snout and a projecting lower jaw, a more rounded body, and a forked rather than a square tail. Fish range from 50 to 90 centimeters long and weigh from 1 to 7 kilograms. Harvested from Labrador to Cape Cod, pollock is caught by mid-water trawls, otter trawls, longlines and handlines.

Atlantic pollock is a lean fish with somewhat darker flesh than cod. It is sold fresh (whole, steaks, fillets); and frozen (whole, steaks, fillets, IQF and blocks). Pollock is frequently salted and cured for export.

## Haddock

*Scientific name: Melanogrammus aeglefinus*

Japanese name: *hadoku*



Long a popular species on both sides of the Atlantic, this member of the cod family ranges in North American waters from the Strait of Belle Isle to Cape Cod. Haddock generally resemble cod, although smaller on average, being from 38 to 63 centimeters in length, with an average weight of .9 to 1.8 kilograms. The head and back are a dark purple-grey with a black lateral line, and the underside is silver-grey with a slight pink cast. It is harvested inshore, near shore, and offshore by otter trawls, traps, longlines and gillnets. Haddock stocks have suffered with other groundfish stocks in recent years and availability is less than it has been in the past. Highest concentrations occur on Georges Bank.

The raw meat is white and cooks up even whiter. Flesh is firm and resilient. Haddock is often sold skin-on so buyers can use the distinguishing black mark (the “devil’s thumbprint” or “St. Peter’s mark”) to differentiate it from cod. Haddock has a delicate flake, finer than cod, and a slightly sweet taste. Cold-smoked haddock (the famous finnan haddie invented by the Scots) is one of the real treats of the sea.