



NORLAND PRODUCTS INCORPORATED

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NORLAND HIGH MOLECULAR WEIGHT (HMW) FISH GELATIN FOOD/PHARMACEUTICAL GRADE

Norland 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.

Norland HMW Fish Gelatin is a Type A gelatin and is supplied as a dry granular product. This gelatin is extracted differently than the standard Norland 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 Norland 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 NORLAND HMW FISH GELATIN

Appearance	Granular
Odor as supplied	None
Color in solution	Pale Yellow - Clear
pH of 10% solution	4.0-7.0
Solids	85% min
Loss on Drying	15% max
Viscosity of 10% solution @ 30°C	25 - 35 cs
Total Ash	2.0% max
Heavy Metals	< 20 ppm
Arsenic	< 1 ppm
Chromium	< 10 ppm
Lead	<1.5 ppm
Fluoride	< 50 ppm
Sulfur Dioxide	< 50 ppm
Hydrogen Peroxide	<100 ppm
Aerobic Bacteria Count	<1000/g
Salmonella	Test neg/25g
Escherichia Coli	Test neg/25g
Yeast Count	< 100/g
Mold Count	< 100/g
Preservatives	No
Kosher Certification	OU