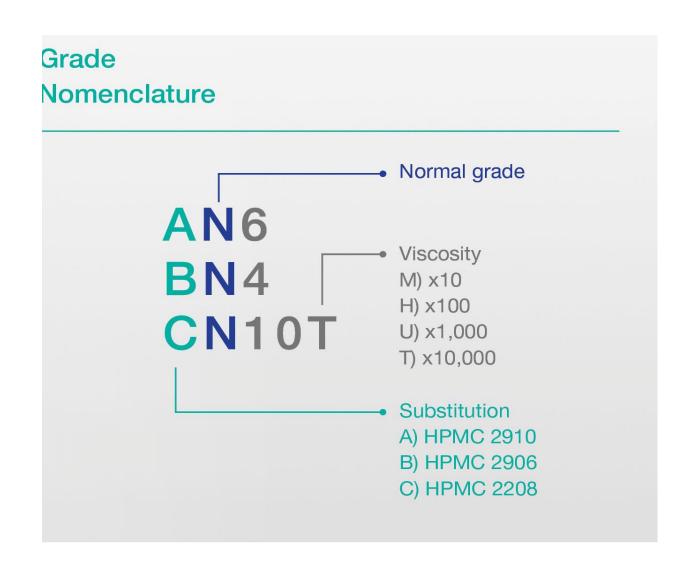
# Lotte HPMC Update

The "Basics"

### Lotte Grade Nomenclature Pharma/Food



### Lotte *AnyCoat-C* Pharma Grade

### **Substitution Type of HPMC**

### **2910**

<u>Viscosity</u>	<u>Grade</u>	<u>Application</u>
3	AN3	Film coating
4	AN4	Film coating, Capsule making
5	AN5	Film coating, Capsule making, Binder
6	AN6	Film coating, Capsule making, Binder
15	AN15	Film coating, Binder
50	AN50	Binder, Matrix base for Controlled Release

#### **PROPERTIES**:

Excellent film forming for tablets, gelling for capsules, binder for increased tablet hardness and 50cps helps create a gel layer for controlling drug release.

### Lotte AnyCoat-C Pharma Grade

### **Substitution Type of HPMC**

### **2906**

<u>Viscosity</u>	<u>Grade</u>	<u>Application</u>
4	BN4	Dry Binder, Solid Dispersion Agent Capsule Making Agent
50	BN50	Binder, Thickening Agent
400	BN40M	Binder, Thickening Agent

#### **PROPERTIES:**

Excellent binding properties for tablet hardness, in liquid formulations is a suspending aid / thickening agent and in capsules they help form gels.

### Lotte AnyCoat-C Pharma Grade

### **Substitution Type of HPMC**

### **2208**

<u>Grade</u>	<u>Application</u>
CN10M	Binder, Thickening Agent
CN40H	Thickening Agent, Matrix Base for Controlled Release Tablets, Binder
CN15U	Thickening Agent, Matrix Base for Controlled Release Tablets, Binder
CN10T	Thickening Agent, Matrix Base for Controlled Release Tablets, Binder
	CN10M CN40H CN15U

### **PROPERTIES**:

In tablets, hydrates to create a gel layer for controlling drug release. In liquid formulations it provides the thickening property <u>and</u> viscosity exponentially increases in relation to the concentration.

### **Lotte Pharma Certifications / Statements On File**

Specification Sheets for all	GMP Certification	Kosher Certification	ISO 9001 Certification
grades	Statement	Continuation	Gertinoation
DMF	Allergen Free	GMO Free	Residual
(Drug Master File)	Statement	(Genetically Modified Organisms)	Solvents
Certification		Statement	Statement
Residual	TSE/BSE	Product	USP/NF, EP,JP,KP
Pesticide	Statement	Data	Certification
Statement	(No Animal Origin)	Analysis	
	AnyCoat-P	Package - Fiber Drum	C of A
MSDS	Specification Sheets Phthalate Grade for	AnyCoat-C AN > 25Kg	With
	Enteric Coatings	AnyCoat-C BN, CN > 20Kg AnyCoat-P > 20 Kg	Samples

#### **Substitution Type of HPMC**

#### **2910**

<u>Viscosity</u>	<u>Grade</u>	<u>Application</u>
6	AN6	Bakery frostings, icings and glazes, Dry batter coatings, Confectionary Coatings
15	AN15	Bakery and confection glazes, Flavor concentrates, Seasoning adhesive
50	AN50	Meat, seafood and poultry batters, Edible films, Candy coatings
4000	AN40H	Moisture barrier coatings, Dry-blended batter mixes, Flavor oil emulsions

#### **PROPERTIES:**

AN-type gums are the best film formers of the *AnyAddy* gums. They reduce the surface tension of water thus provide emulsification and barrier properties in a variety of foods.

# Substitution Type of HPMC 2906

<u>Viscosity</u>	<u>Grade</u>	<u>Application</u>
4	BN4	Whipped Toppings(Non-Dairy)
50	BN50	Whipped Toppings(Non-Dairy), Salad dressings(pourable), Seasonings
400	BN40M	Cream sauces, Confection icings, Doughnuts and Cakes
4000	BN40H	Salad dressings(spoonable), Pizza dough, Pancake batters

#### PROPERTIES:

BN-type gums produce the best combination of moisture control and interfacial activity for non-dairy whipped topping mixes. They also provide favorable texture and structure for baked goods and improve the barrier properties of frying batters.

### Substitution Type of HPMC 2208

<u>Viscosity</u>	<u>Grade</u>	<u>Application</u>
100	CN10M	Dessert fillings, Cakes,Cookies,Biscuits, Gluten free breads/baked goods
4000	CN40H	Tortillas, Ice cream, Puddings, Dressings, Gluten free breads/baked goods, Pet food, Pie and pastry fillings
15000	CN15U	Frozen novelties, whipped toppings, Bakery frostings, Sauces and soups
100000	CN10T	Pie and pastry fillings, Frozen dough, Custards & Puddings, Condiments

#### **PROPERTIES**:

CN-type gums form soft, fluid gels and reduce boilout in fillings. They provide the best freeze/thaw stability in frozen foods and contribute to replacement of gluten and fat in breads/cakes due to their interfacial activity and moisture retention properties.

### **Methylcellulose (MC)**

<u>Viscosity</u>	<u>Grade</u>	<u>Application</u>
15	MC15	Tortilla chips, Flavor concentrates, Dry & liquid glazes, Marinades, Cookies
400	MC40M	Structured meat, seafood & poultry, Pasta, Potato products, Sauces & Soups
4000	MC40H	Salad dressings(dry mix/pourable), Batter mixes for meat, poultry & seafood, Glazes Pie crusts, Cream soups, Bread & Cakes

#### **PROPERTIES:**

MC-type gums in <u>low viscosity</u> improve texture in sauces and reduce boilout in fillings. They form firm gels providing structure in baking, binding in restructured foods and adhesion in frying batters. MC gums are useful in stabilizing oil-in-water emulsions.

### **Lotte Food Certifications / Statements On File**

Specification Sheets for all grades	GMP Certification Statement	GMO Free (Genetically Modified Organisms) Statement	Allergen Free Statement
Nutritional	Kosher	TSE/BSE	ISO 9001
Statement	Certification	Statement	Certification
		(No Animal Origin)	
(Nutrients in	Residual		Residual
AnyAddy)	Solvent		Pesticide
SDS	Product	Package - Paper Bag	C of A
	Data	A. A. I. I. ANI. OFICE	With
	Analysis	AnyAddy AN > 25Kg	Samples
		AnyAddy BN,CN,MC > 20Kg	