

KimaCell

Cellulose Ether



Kima Chemical Co., Ltd

Leading Cellulose Ether Manufacturer in China

***KimaCell®* Cellulose Ethers**

Product List

- 1. Hydroxypropyl Methylcellulose(HPMC)**
- 2. Methyl Hydroxyethyl Cellulose(MHEC/HEMC)**
- 3. Hydroxyethyl Cellulose(HEC)**
- 4. Methyl Cellulose(MC)**
- 5. Ethyl Cellulose(EC)**
- 6. Carboxymethyl Cellulose(CMC)**
- 7. Redispersible Polymer Powder(RDP)**
- 8. Hydroxypropyl Cellulose(HPC)**
- 9. Hydroxypropyl Starch Ether(HPS)**
- 10. Hydroxypropyl Methyl Cellulose Phthalate (HPMC-P)**
- 11. Low Substituted Hydroxypropyl Cellulose(L-HPC)**
- 12. Polyanionic Cellulose(PAC)**
- 13. Microcrystalline Cellulose (MCC)**

***KimaCell®* ,Focus on Cellulose Ethers !**

Company Introduction

Kima Chemical Co.,Ltd is based in Shandong,China,manufacturing approximately 20000 tons of cellulose ether annually and become one of the most reliable cellulose ether suppliers in the world. Our cellulose ether series products are consist of Hydroxypropyl Methyl Cellulose (HPMC), Hydroxyethyl Cellulose (HEC), Methyl Hydroxyethyl Cellulose (MHEC),Sodium Carboxymethyl Cellulose (CMC), Ethyl Cellulose(EC), Hydroxypropyl Cellulose (HPC), Methyl Cellulose(MC), Low Substitute Hydroxypropyl Cellulose (L-HPC), Hydroxypropyl Methyl Cellulose Phthalate (HPMC-P),Polyanionic cellulose (PAC) etc. As one of world important cellulose ether supplier, our product can be widely used in building,paint,pharma,food,cosmetic,detergent,home care,tile adhesive,drymix mortar ,wall putty, etc applications.

Kima have always implemented the business philosophy of "science and technology first, people-oriented", and expanded the market with the "KimaCell" brand as a registered trademark. The company has a new technology research and development center, with a strong scientific research and development force and technical service team. Satisfied with the product.

After more than ten years of hard work and development, with "excellent quality and excellent service", it has become professional Cellulose Ether enterprise.

The company has passed the ISO9000 international quality system certification, the product quality has reached the international advanced level, and the variety and quality meet the needs of domestic and foreign merchants. The company's strong economic strength and rich human resources have laid a solid foundation for the company's long-term development. Excellent quality, best price, and considerate service are the pursuit goals of our company. We are willing to sincerely unite, cooperate with domestic and foreign customers, keep pace with the times, and create brilliance together!



Hydroxypropyl Methyl Cellulose (HPMC)

Hydroxypropyl Methyl Cellulose (HPMC) is also named as MHPC, Hypromellose, are types of non-ionic cellulose ether, which are a powder of white to off-white color, that function as a thickener, binder, film-former, surfactant, protective colloid, lubricant, emulsifier, and suspension and water retention.

Nomenclature of HPMC for Building

HPMC MP200M S (for example)

MP: KimaCell HPMC

200M: 200,000cps

S: surface treatment

Appearance	White or off-white powder
Methoxy (%)	19.0~ 24.0
Hydroxypropoxy (%)	4.0 ~ 12.0
pH	5.0~ 7.5
Moisture (%)	≤ 5.0
Residue on ignition (%)	≤ 5.0
Gelling temperature (°C)	70~ 90
Particle size	min.99% pass through 100 mesh

Product grade	Viscosity (NDJ, mPa.s, 2%)	Viscosity (Brookfield, mPa.s, 2%)
HPMC MP400	320-480	320-480
HPMC MP60M	48000-72000	24000-36000
HPMC MP100M	80000-120000	40000-55000
HPMC MP150M	120000-180000	55000-65000
HPMC MP200M	160000-240000	Min70000
HPMC MP60MS	48000-72000	24000-36000
HPMC MP100MS	80000-120000	40000-55000
HPMC MP150MS	120000-180000	55000-65000
HPMC MP200MS	160000-240000	Min70000

Dissolution Method

Non-surface treated HPMC powder:

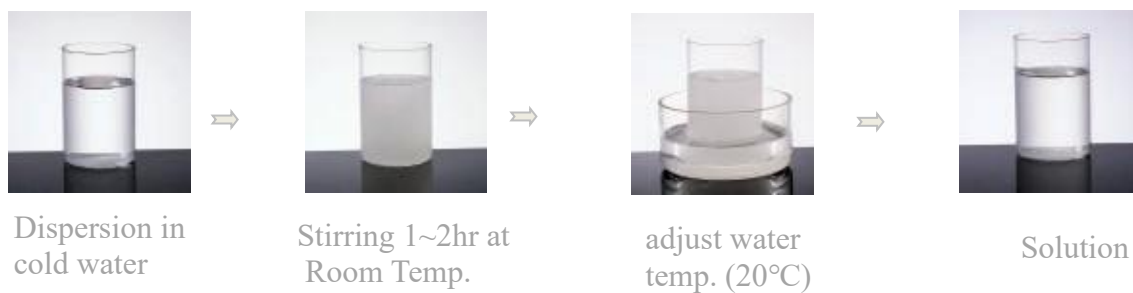
If non-surface treated powder is put into cold water directly, it forms lumps easily due to its too quick solubility with cold water. To prevent lumping, put the powder into water (over 90°C) First, stir to disperse and then cool down the solution with stirring.



When non-surface treated powder is used in a dry-mixing application, lumping is not a concern since each particle of HPMC is distributed throughout the final products evenly.

Surface treated HPMC powder:

Surface treated powder is specially developed to prevent lumping in the wet blending application such as paints and emulsion based ones. To make the solution with surface treated powder, place the powder directly into cold water. With time the viscosity fully developed-solution is prepared with continuous stirring.



Each KimaCell HPMC shows different solubility properties. The solubility of KimCell HPMC depends on the original property of the basic HPMC and its degree of modification.

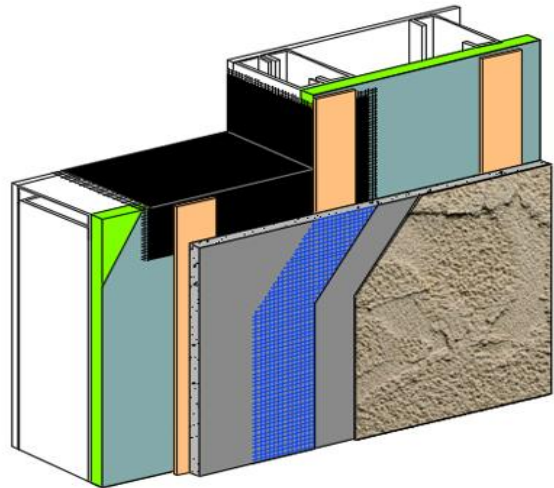
Application Fields:

Wall putty

- Water retention: maximized water content in slurry.
- Anti-sagging: when spreading a thicker coat corrugation can be avoided.
- Increased mortar yield: depending on the weight of the dry mixture and appropriate formulation ,HPMC can increase the mortar volume.

Exterior Insulation and Finish System (EIFS)

- Improved adhesion.
- Good wetting ability for EPS board and substrate.
- Reduced air entrancement and water uptake.



Tile Adhesives

- Better workability: lubricity and plasticity of plaster is ensured, mortar can be applied easier and quicker.
- Good water retention: prolonged opening time will make tiling more efficient.
- Improved adhesion and sliding resistance: especially for heavy tiles.

Dry mix mortar

- Easy dry mix formula due to cold water solubility: lump formation can be easily avoided, ideal for heavy tiles.
- Good water retention: prevention of fluid loss to the substrates, the appropriate water content is kept in mixture which guarantees longer concreting time.



**Hydroxyethyl Methyl Cellulose(HEMC)
Methyl Hydroxyethyl Cellulose(MHEC)**

Hydroxyethyl Methyl Cellulose (HEMC) is also named as Methyl Hydroxyethyl Cellulose(MHEC), used as high efficient water retention agent, stabilizer, adhesives and film-forming agent in kinds of building materials.is widely used in industrial applications ,such as construction, detergent ,paint and coating ,we also can provide MHEC according to customers requirements.

Nomenclature of MHEC

MHEC MH200M S (for example)

MH: KimaCell MHEC

200M: 200,000cps

S: surface treatment

Properties

Appearance	White to off-white powder
Particle size	99% through 100 mesh
Moisture (%)	≤5.0
PH value	5.0-8.0

Specification:

Product grade	Viscosity (NDJ, mPa.s, 2%)	Viscosity (Brookfield, mPa.s, 2%)
MHEC MH60M	48000-72000	24000-36000
MHEC MH100M	80000-120000	40000-55000
MHEC MH150M	120000-180000	55000-65000
MHEC MH200M	160000-240000	Min70000
MHEC MH60MS	48000-72000	24000-36000
MHEC MH100MS	80000-120000	40000-55000
MHEC MH150MS	120000-180000	55000-65000
MHEC MH200MS	160000-240000	Min70000

Applications

Applications	Property	Recommend grade
External wall insulation mortar Cement plaster mortar Self-leveling Dry-mix mortar Plasters	Thickening Forming and curing Water-binding, adhesion Delay open-time, good flowing Thickening, Water-binding	MHEC MH200M MHEC MH150M MHEC MH100M MHEC MH60M MHEC MH40M
Wallpaper adhesives latex adhesives Plywood adhesives	Thickening and lubricity Thickening and water-binding Thickening and solids holdout	MHEC MH100M MHEC MH60M
Detergent	Thickening	MHEC MH150MS



Hydroxyethyl Cellulose(HEC)

Hydroxyethyl Cellulose (HEC) is a nonionic cellulose derivative which dissolves in both cold and hot water. It is used to produce solutions having a wide range of viscosity. Such solutions has typical Non-Newtonian flow characteristic. KimaCell® HEC has unique combination of water. Water solution is smooth , homogenous solution , and good flow and leveling.

Appearance	White to off-white powder
Particle size	98% pass 100 mesh
Molar substituting on degree (MS)	1.8~2.5
Residue on ignition (%)	≤0.5
pH value	5.0~8.0
Moisture (%)	≤5.0

Product grade	Bio-grade	Viscosity (NDJ, mPa.s, 2%)	Viscosity (Brookfield, mPa.s, 1%)	Viscosity set
HEC HS300	HEC HB300	240-360		LV.30rpm sp2
HEC HS6000	HEC HB6000	4800-7200		RV.20rpm sp5
HEC HS30000	HEC HB30000	24000-36000	1500-2500	RV.20rpm sp6
HEC HS60000	HEC HB60000	48000-72000	2400-3600	RV.20rpm sp6
HEC HS100000	HEC HB100000	80000-120000	4000-6000	RV.20rpm sp6
HEC HS150000	HEC HB150000	120000-180000	7000min	RV.12rpm sp6



Methyl Cellulose(MC)

Methyl cellulose(MC) is a cellulose methyl ether. White or light yellow or light gray small particles, filaments or powder. It is odorless and tasteless, and about 27%~32% of the hydroxyl groups exist in the form of methoxy groups.

MC can be used as synthetic resin dispersant, coating film-forming agent, thickener, adhesive for building materials, sizing agent for textile printing and dyeing, film-forming agent for pharmaceutical and food industries, etc.

Methyl cellulose has unique thermal reversible gel properties and functions such as thickening, emulsifying, film-forming and surface activity, making it suitable for baked goods, fried foods, desserts (especially non-dairy cream), frozen foods, sauces, soups, beverages, flavors, candies, etc. have extremely special applications.

Specifications

Grade	MC 55A
Gel temperature (°C)	50.0-55.0
Methoxy (WT%)	27.5 - 31.5
Viscosity(cps, 2% Solution)	15, 20, 50, 100, 400, 4000,30000,50000,100000

Application Range

1. Construction industry.

MC can be used in cement based drymix mortar, joint mortar and other mixtures. It is used as a binder for film-forming agents in cosmetics, medicine and food industries, as well as sizing agents for textile printing and dyeing, synthetic resin dispersants, coating film-forming agents and thickeners. Methyl fiber is a very stable substance, resistant to acid, alkali, microorganisms, heat, etc. In the human body, it is excreted completely unchanged.

2. Pharma&Food industry

MC can be used as Thickeners; Stabilizers; Emulsifiers; Excipients; Dispersants; Adhesives; Film-Forming Agents Hydrosol Substitutes. Also used in mayonnaise, shortening and certain other foods. Because this product is indigestible in the body, it can maintain several times of water and cause satiety. It can be used in soda biscuits, waffles, etc. to make therapeutic food. When using, first wet the powder with about 1/5 of the required amount of hot water, then add cold water (add ice if necessary) and stir well. EEC: Approved for frozen foam products, potato chips, soft drinks, special dietary foods, bakery fillings, foam toppings, sauces, sauces.

3. Paint and Coatings

Emulsifiers in painting mediums.

Hydroxypropyl Starch Ether(HPS)

Hydroxypropyl starch ether(HPS) is a white colorless powder with good fluidity and good water solubility. Its aqueous solution is transparent and colorless with good stability. It is stable to acid and alkali, the gelatinization temperature is lower than that of native starch, and the change of cold and hot viscosity is more stable than that of native starch. Mixing with salt, sucrose, etc. has no effect on viscosity. After etherification, the ice-thaw stability and transparency are improved.

Specifications

Appearance	White powder
Solubility	Soluble in water, become a transparent solution
Viscosity (5% aqueous solution, 20°C)	500-20000 mPa.s
PH value (2% aqueous solution)	8-10.5

Application Range

1. Hydroxypropyl starch food industry, hydroxypropyl starch can be used as thickener, suspending agent, binder.
2. Hydroxypropyl starch papermaking industry: Hydroxypropyl starch is used for internal sizing of paper and surface sizing to make the printing ink bright, make the film smooth, reduce ink consumption, and have a certain ability to pull hair.
3. Hydroxypropyl starch textile industry: Hydroxypropyl starch can be used as warp yarn size to improve the wear resistance during weaving, hydroxypropyl starch and weaving efficiency, and hydroxypropyl starch with a high degree of substitution of hydroxypropyl starch can be used as Printing paste.
4. Hydroxypropyl starch pharmaceutical industry: hydroxypropyl starch can be used as a disintegrant for tablets.

Key Properties

1. Very good rapid thickening ability, medium viscosity, and certain water retention.
2. The dosage is small, and a very low dosage can achieve a high effect.
3. Improve the anti-sliding ability of the material.
4. Improve the operating performance of the material and make the operation smoother.
5. Extend the opening time of materials.

Low Substituted Hydroxypropyl Cellulose(L-HPC)

Low-substituted hydroxypropyl cellulose(L-HPC) is a multi-purpose non-ionic cellulose derivative, which is mainly used as a solid preparation disintegration and binder. Because its powder has a large surface area and porosity, it can quickly absorb water and swell. When it is used in tablets, it makes the tablets disintegrate quickly. At the same time, its rough structure has a large inlay between the drug and the particles, which can significantly increase the hardness of the tablet without affecting the disintegration, thereby accelerating the drug. Dissolution, improve bioavailability.

Specifications

1. This product is white or off-white fibrous or granular powder, tasteless, odorless or slightly smelly and tasteless. The average particle size is different and the grade is different, and some of its powder properties are also different. Large particles have good disintegration, and small particles have strong bonding.
2. Bulk density: about 0.46g/ cm³
3. Tapping density: about 0.57~0.65g/cm³

Product Grade

Grade	Particle appearance	Characteristics	Hydroxypropoxy content(%)	particle size(μm)	90 % cumulated particle size(μm)	Typical application
L-HPC LH11	Most fibrous	Highly anti-capping effect	11	55	175	Direct compression, Wet granulation (anti-capping)
L-HPC LH21	Moderately fibrous	Regular grade	11	45	135	Direct compression, Wet granulation

Application Range

1. It is mainly used as a disintegrant in tablets and a binder for wet granulation, and it can also be used as a rapid disintegrant for direct compression.
2. It can also be used as a food additive, used as an emulsifier, stabilizer, suspending agent, thickener, and film-forming agent in the food industry, and used in the manufacture of beverages, pastries, and jams.
3. It is also used in the daily chemical industry for the manufacture of creams, shampoos, lotions and other cosmetics.

Key Properties

1. L-HPC is insoluble in water and organic solvents, but swellable in water, which is its outstanding feature. The swelling property of L-HPC increases with the increase of substituents
2. Soluble in NaOH solution to form a viscous solution. Because its powder has a large surface area and porosity, it accelerates the moisture absorption rate and increases the swelling property. When used in tablets, it makes the tablets easy to disintegrate
3. Its rough structure has a greater mosaic effect between the powder and granules, which increases the bonding strength, thereby improving the hardness and gloss of the tablet.

Hydroxypropyl Methyl Cellulose Phthalate (HPMC-P)

Hydroxypropyl Methyl Cellulose Phthalate (HPMC-P) was originally developed as an enteric coating agent, but due to its excellent characteristics, it has expanded its use in other fields, including sustained release agents, formulations, adhesives and microcapsule components. In application, HPMCP is usually used alone or mixed with other polymers as a buffering agent.

Specifications

Appearance	White or nearly white granular solid.
melting point	>145 °C (dec.)(lit.)
density	0.6 g/mL at 25 °C
Solubility	H2O: Limited solubility at low pH, soluble at pH \geq 4.2.soluble

Hypromellose Phthalate Grade

	Grade	Nominal Phthalyl Content	pH Solubility	Labeled Viscosity (cSt)*
HPMC-P	HP55	31%	\geq 5.5	40
	HP55S			170

Note: * 10 wt.% in a mixture of equal weights of Methanol and Methylene Chloride according to the USP/NF measuring method.

Application Range

Hydroxypropyl methylcellulose phthalate HPMC-P is an enteric film coating material with excellent performance. In addition, it is widely used in aquaculture, industry, biotechnology and other aspects.

Key Properties

Good solubility in organic solvents

Polyanionic Cellulose(PAC)

Polyanionic cellulose(PAC) is a nonionic water-soluble cellulose ether derivative obtained by chemically modifying natural cellulose. Its sodium salt is usually used. Polyanionic cellulose has a good Excellent heat stability and salt resistance, strong antibacterial properties. The mud fluid prepared by this product has good water loss reduction, inhibition and high temperature resistance. PAC is widely used in oil well drilling fluid as a mud stabilizer and fluid loss controller, it is particularly effective in saltwater brines. PAC-HV can be used in a smaller amount to increase viscosity and reduce fluid loss. PAC-LV can be used in higher amounts to reduce fluid loss with little effect on viscosity.

Specifications

Item	Standard		
	PAC-LV	PAC-HV	
Appearance	Freely flowable powder	Freely flowable powder	
pH	6.0-8.0	6.0-8.0	
Purity	95% Min.	95% Min.	
Moisture	10% Max.	10% Max.	
D.S.	0.90 Min.	0.90 Min.	
Viscosity Brookfield 1%	50 Max.	1500 Min.	
API Fluid Lose	Increase 0.57%	25.0ml Max.	20.0ml Max.
	Increase 0.86%	15.0ml Max.	15.0ml Max.
	Increase 1.14%	10.0ml Max.	10.0ml Max.
YP Value	Increase 0.57%	0.5 Max.	2.4 Min.
	Increase 0.86%	1.0 Max.	9.6 Min.
	Increase 1.14%	1.5 Max.	19.2 Min.

Application Range

PAC-HV is for water-based drilling fluids, which can effectively reduces the filtration rate of many water-based oil and gas drilling fluids and may also be used to increase and stabilize viscosity to improve hole cleaning and suspension properties in a wide variety of fluid environment.

PAC -LV is for use in solids-laden, water-based drilling fluids, which can effectively reduces the filtration rate of many water-based drilling fluids, without causing significant increases in viscosity.

Hydroxypropyl Cellulose(HPC)

Hydroxypropyl cellulose(HPC) is a non-ionic water-soluble cellulose ether obtained by the reaction of cellulose and propylene oxide. Odorless, tasteless, usually white to pale yellow powder. Its unique physical properties and its solubility in water and various organic solvents make it widely used in tablet bonding, release regulation, film coating and rheology regulation. HPC has been used in the pharmaceutical industry for many years, and the country has very good safety. The products comply with the US Pharmacopoeia, European Pharmacopoeia, and Japanese Pharmacopoeia.

Specifications

Product number	Viscosity (mpa.s)	Molecular weight (average)	Quality Standard
HPC EF	300-600 (10%)	80000	USP/EP
HPC LF	75-150 (5%)	95000	USP/EP
HPC JF	150-400(5%)	140000	USP/EP
HPC GF	150-400(2%)	370000	USP/EP
HPC MF	4000-6500(2%)	850000	USP/EP
HPC HF	1500-3000(1%)	1150000	USP/EP

Application Range

1. Used as a viscous agent: In the pharmaceutical field, this product is mainly used as a binder, such as a binder for tablets, granules, and fine grains.
2. Used as a film coating material for tablets. HPC has excellent film-forming properties, and the obtained film is tough and elastic, which can be compared with plasticizers, and the performance of the film can be further improved by mixing it with other moisture-resistant coating agents.
3. Used as a thickener for elixirs, an additive for lotions and a stabilizer for emulsions.
4. It can be used as a matrix material to prepare matrix sustained-release tablets, sustained-release pellets and double-layer sustained-release tablets.
5. Used as a gel agent in the case of ethanol and as an ointment base.
6. Used in the daily chemical industry, for the manufacture of creams, shampoos, lotions and other cosmetics.
7. It can also be used as a food additive, used as an emulsifier, stabilizer, suspending agent, thickener, and film-forming agent in the food industry, and used in the manufacture of beverages, pastries, jams, etc.
8. As tablet disintegrant and binder.

Carboxy Methyl Cellulose(CMC)

Carboxy Methyl Cellulose(CMC) is easy soluble in both cold and hot water. It provides good properties of thickening, water retention, film-forming, rheology and lubricity, which enable CMC cover a wide range of applications such as personal care products, industrial paints, detergent ,ceramics, oil drilling, building materials etc.

Typical properties

Appearance	White to off-white powder
Particle size	95% pass 80 mesh
Degree of substitution	0.7-1.5
PH value	6.0~8.5
Purity (%)	92min, 97min, 99.5min

Popular grades

Application	Product grade	Viscosity (Brookfield, LV, 2% Solu)	Viscosity (Brookfield LV, mPa.s, 1% Solu)	Degree of Substitution	Purity
For Paint	CMC PT5000		5000-6000	0.75-0.90	97%min
	CMC PT6000		6000-7000	0.75-0.90	97%min
	CMC PT7000		7000-7500	0.75-0.90	97%min
For detergent	CMC FD7		6-50	0.45-0.55	55%min
For Toothpaste	CMC TP1000		1000-2000	0.95min	99.5%min
For Ceramic	CMC FC1200	1200-1300		0.8-1.0	92%min
For oil field	CMC LV		70max	0.9min	
	CMC HV		2000max	0.9min	

Redispersible Polymer Powder (RDP)

Redispersible Polymer Powder (RDP) is spray dried redispersible polymer powder, also named as Redispersible emulsion Powder or latex powder, designed for the construction industry to enhance the properties of dry mortar blends, able to Redispersible in water and react with hydrate product of cement / gypsum and stuffing, form composite membrane with good mechanics intensity.

It improves the important application properties of dry mortars, longer opening time, better adhesion with difficult substrates, lower water consumption, better abrasion and impact resistance.

Technical Specification

	RDP-212	RDP-213
Appearance	White free flowing powder	White free flowing powder
Particle size	80µm	80-100µm
Bulk density	400-550g/l	350-550g/l
Solid content	98 min	98min
Ash content	10-12	10-12
PH value	5.0-8.0	5.0-8.0
MFFT	0°C	4°C
Tg	5°C	2°C

Applications

Items	RDP 212	RDP 213
Tile adhesive	●●●	●●
Thermal insulation	●	●●
Self- leveling	●●	
Flexible exterior wall putty		●●●
Repair mortar	●	●●
Gypsum joint and crack fillers	●	●●
Tile grouts		●●

- application
- recommend
- High recommend

Hydroxypropyl Methyl Cellulose (HPMC)

Nomenclature of HPMC Pharma grade

HPMC E5

- **HPMC:** KimaCell HPMC
- **E:** pharma grade
- **5:** viscosity 5cps



HPMC is a multi-purpose pharma materials, can be used as thickener, dispersant, emulsifier and film-forming agent. Made in the drug tablet film coating, adhesive, can significantly improve the dissolution rate of drugs can enhance the waterproof tablets. Also as a suspension, ophthalmic preparations, controlled release formulations such as skeletons and floating tablets. HPMC and other synthetic polymers and colloidal drug binding, can prevent water and alcohol drugs from the transparent gel to separate the water and improve water retention, is also being food, cosmetics and other areas used as a thickener, emulsifier and improve Rheological properties, as well as to other daily-use chemical industry, etc. Currently this product has become the main material for plant capsule.

	Grade	NDJ Viscosity	Brookfield Viscosity	Coating	Control released agent	Granulation, Tablet, Binder	Antacid	Eyedrop	Suspending agent	gels and ointments	Aperient
HPMC	E3	3	3	••		•					
	E5	5	5	••	•	•					
	E6	6	6	••	•	•					
	E15	15	15	••	•	••	••				
	E50	50	50		••	••		••			
	K100	100	100		••				•		
	K4M	4,000	4,000				••	••	••	••	••
	K15M	15,000	15,000		••				•		
K100M	100,000	100,000		••				•			

•• Recommended • Workable

Ethyl cellulose (EC)

Ethyl cellulose can't dissolve in water, but soluble in many organic solvents, so EC used in tablets, granules of its adhesive agent. It can increase the hardness of tablets to reduce friability tablets, it can be used as film-forming agent to improve the appearance of tablets, isolated taste, to avoid the failure of water-sensitive drugs to prevent the influx of metamorphic change agents, promoting the safe storage of tablets, also can be used as reinforcing material for sustained release tablets.

Items	K grade	N grade
Ethoxy (WT%)	45.5 – 46.8	47.5 – 49.5
Viscosity mpa.s 5% solu. 20 *c	4, 5, 7, 10, 20, 50, 70, 100, 150, 200, 300	
Loss on drying (%)	≤ 3.0	
Chloride (%)	≤ 0.1	
Residue on ignition (%)	≤ 0.4	
Heavy metals ppm	≤ 20	
Arsenic ppm	≤ 3	

EC can be dissolved in various organic solvents, such as ethanol, isopropyl alcohol, other alcohols, ketones, aromatic and so on. Common solvent (volume ratio):

- 1) Toluene:Ethanol = 4:1
- 2) Ethanol
- 3) Acetone:Isopropanol = 65:35
- 4) Toluene:Isopropanol = 4:1
- 5) Methyl Acetate:Methanol = 85:15



Carboxy Methyl Cellulose (CMC)

Carboxy Methyl Cellulose (CMC) is easy soluble in both cold and hot water. It provides good properties of thickening, water retention, film-forming, rheology and lubricity, which enable CMC cover a wide range of applications such as pharmaceutical and food applications etc.

Typical properties

Appearance	White to off-white powder
Particle size	95% pass 80 mesh
Degree of substitution	0.75-0.90
PH value	6.0~8.5
Purity (%)	99.5%min

Popular grades

Application	Typical grade	Viscosity (Brookfield, LV, 2% Solu)	Viscosity (Brookfield LV, mPa.s, 1% Solu)	Degree of Substitution	Purity
For Pharma & food	CMC FE1000	500-1500		0.75-0.90	99.5%min
	CMC FE2000	1500-2500		0.75-0.90	99.5%min
	CMC FE3000	2500-3500		0.75-0.90	99.5%min
	CMC FE4000	3500-4500		0.75-0.90	99.5%min
	CMC FE5000	4500-5500		0.75-0.90	99.5%min
	CMC FG1000		500-1500	0.75-0.90	99.5%min
	CMC FG2000		1500-2500	0.75-0.90	99.5%min
	CMC FG3000		2500-5000	0.75-0.90	99.5%min
	CMC FG5000		5000-6000	0.75-0.90	99.5%min
	CMC FG6000		6000-7000	0.75-0.90	99.5%min
CMC FG7000		7000-7500	0.75-0.90	99.5%min	

Production Line



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