

**KIMA CHEMICAL CO.LTD**  
Add:Zhangdian,Zibo, Shandong, P.R.China  
Tel: +86-533-6281218  
Email:sales@kimachemical.com  
[www.kimachemical.com](http://www.kimachemical.com)



## **Paper-making grade CMC**

Paper-making grade CMC Sodium carboxymethyl cellulose has excellent adhesion, thickening, emulsion, suspension, flocculation, film, protective colloid, retain water, chemical stability and excellent properties such as pulp fiber affinity, introduction of the hydrophilic carboxymethyl groups in its molecular structure, make the swelling of cellulose have greatly increased, easy to pulp fiber and filler particle affinity, enhance toughness and strength of paper; Can promote the pulp and filler with negative charge and mutually exclusive, so that the fiber and filler evenly dispersed in the pulp, improve the paper uniformity; Paper-making grade CMC Can be used in surface sizing agent to improve the strength and smoothness of paper; It can disperse pigment well and improve the effect of printing and dyeing. It can improve the water retention effect by controlling and adjusting the rheology of coating. It can show better whitening and hue improvement effect than starch, polyethylene glycol and other fluorescent brightening agent carrier, it is a multi-functional paper making assistant.

### **Main role of CMC in paper industry:**

#### **1. Paint coating**

Control and adjust the rheology of paint and pigment dispersion, improve the solid content of paint;

Make the coating have false plastic, improve the coating speed;

Enhance coating water retention, prevent water-soluble adhesive migration;

Has good film forming, improve the gloss of the coating;

Improve the retention rate of whitening agent in coating, improve the whiteness of paper;

Improve the lubrication performance of coating, improve the quality of coating, prolong the service life of the scraper.

#### **2. Add in slurry**

Improve grinding efficiency, promote fiber refinement, shorten beating time;

Adjust the electric potential inside the pulp, evenly disperse the fiber, improve the "copying performance" of the paper machine, and further improve the page forming;

Improve the retention of various additives, fillers and fine fibers;

Increase the binding force between fibers, improve the physical properties of paper;

The dry and wet strength of paper can be improved when used together with dry and wet strength agent.

Protect rosin, AKD and other sizing agents, enhance sizing effect.

#### **3. Surface sizing**

It has good rheological property and film forming property.

Reduce paper surface pores, improve the oil resistance of paper;

Increase the brightness and gloss of the paper;

Increase paper stiffness, smoothness, control crimp;

Increase the surface strength and wear resistance of paper, reduce the shedding of hair and powder, improve the printing quality.

### 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	Typical grade	Viscosity (Brookfield, LV, 2%Soln)	Viscosity (Brookfield LV, mPa.s, 1%Soln)	Degree of Substitution	Purity
CMC For paper-making grade	CMC PM50	20-50		0.75-0.90	97%min
	CMC PM100	80-150		0.75-0.90	97%min
	CMC PM1000	1000-1200		0.75-0.90	97%min

### Application

In the paper industry, CMC is used in the pulping process, which can improve the retention rate and increase wet strength. Used for surface sizing, as a pigment excipient, improve internal adhesion, reduce printing dust, improve printing quality; Used for paper coating, is conducive to the dispersion and fluidity of pigment, enhance paper smoothness, smoothness, optical properties and printing adaptability. In the paper industry as a practical value and a wide range of additives, mainly because of its water-soluble polymer film formation and oil resistance.

- Used for sizing paper, so that paper has high density, good ink permeability resistance, high wax collection and smoothness.
- Can improve the paper internal fiber viscosity state, so as to improve the paper strength and folding resistance.
- In paper and paper coloring process, CMC helps to control the flow of color paste and good ink absorption.

Generally, the recommended dosage is 0.3-1.5%.

### Packaging:

CMC Product is packed in three layer paper bag with inner polyethylene bag reinforced , net weight is 25kg per bag.

**KIMA CHEMICAL CO.LTD**

Add:Zhangdian,Zibo, Shandong, P.R.China

Tel: +86-533-6281218

Email:sales@kimachemical.com

[www.kimachemical.com](http://www.kimachemical.com)



12MT/20'FCL (with Pallet)

14MT/20'FCL (without Pallet)