#### KIMA CHEMICAL CO.LTD

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## **Detergent grade CMC**

Detergent grade CMC Sodium carboxymethyl cellulose is to prevent dirt redeposition, its principle is the negative dirt and adsorbed on the fabric itself and charged CMC molecules have mutual electrostatic repulsion, in addition, CMC can also make the washing slurry or soap liquid effective thickening and make the composition of the structure stability.

Detergent grade CMC is the best active agent for synthetic detergent, and mainly plays an anti-fouling redeposition role. One is to prevent the deposition of heavy metals and inorganic salts; The other is to make the dirt suspended in the water solution because of washing, and disperse in the water solution to prevent the dirt deposition to the fabric.

#### **Advantages of CMC**

CMC is mainly used in detergent to make use of its emulsifying and protective colloid properties, in the washing process it produces anions can simultaneously make the surface of the washed objects and dirt particles are negatively charged, so that dirt particles have phase separation in the water phase, and the solid phase of the surface of the washed objects have repulsion, to prevent dirt redeposition on the washed objects, therefore, When washing clothes with CMC detergent and soap, the stain removal ability is enhanced, and the washing time is shortened, so that the white fabric can maintain whiteness and cleanliness, and the colored fabric can maintain the brilliance of the original color.

Another advantage of CMC for synthetic detergents is that it facilitates washing, especially for cotton fabrics in hard water. Can stabilize foam, not only save washing time and can be used repeatedly washing liquid; After washing the fabric has a soft feeling; Reduce skin irritation.

CMC used in slurry detergent, in addition to the above functions, but also has a stabilizing effect, detergent does not precipitate.

Adding proper amount of CMC in the manufacture of soap can improve the quality, and its mechanism and advantages are the same as those of synthetic detergent, it can also make the soap soft and easy to be processed and pressed, and the pressed soap block is smooth and beautiful. CMC is especially suitable for soap because of its emulsifying effect, which can make spices and dyes evenly distributed in soap.

### **Typical properties**

Appearance	White to off-white powder	
Particle size	95% pass 80 mesh	
Degree of substitution	0.4-0.7	

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PH value	6.0~8.5
Purity (%)	55min, 70min

#### Popular grades

Application	Typical grade	Viscosity (Brookfield, LV, 2%Solu)	Viscosity (Brookfield LV, mPa.s, 1%Solu)	Degree of Substitution	Purity
For detergent	CMC FD7		6-50	0.45-0.55	55%min
	CMC FD40	20-40		0.4-0.6	70%min

## Application

- 1. When making soap, adding an appropriate amount of CMC can greatly improve the quality of soap, make soap flexible, easy to process and press, make soap smooth and beautiful, and make spice and dye evenly distributed in soap.
- 2. Adding detergent grade CMC to the laundry cream can effectively thick the detergent slurry and stabilize the structure of the composition, play the role of shape and bonding, so that the laundry cream is not divided into water and layers, and the cream is bright, smooth, delicate, temperature resistant, moisturizing and fragrant.
- 3. Detergent grade CMC used in washing powder can stabilize foam, not only save washing time but also make the fabric soft and reduce the stimulation of the fabric to the skin.
- 4. After detergent grade CMC is added to detergent, the product has high viscosity, transparency and no thinning.
- 5. Detergent grade CMC, as a major detergent agent, is also widely used in shampoo, shower gel, collar cleaning, hand sanitizer, shoe polish, toilet block and other daily necessities.

## **CMC** dosage

- 1. After adding 2% CMC in detergent, the whiteness of white fabric can be kept at 90% after washing. Above, so general detergent with the amount of CMC in the range of 1-3% is better.
- 2. When making soap, the CMC can be made into a transparent slurry of 10%, and the thick slurry can be made with spice dyes at the same time
- Put into the mixing machine, and then mix fully with the dry saponin pieces after pressing, the general dosage is 0.5-1.5%. Saponin tablets with high salt content or brittle should be more.
- 3. CMC is mainly used in washing powder to prevent repeated precipitation of impurities. The dosage is 0.3-1.0%.
- 4. When CMC is used on shampoo, shower gel, hand sanitizer, car wash liquid, toilet cleaner and other products, Abundant foam, good stabilizing effect, thickening, no stratification, no turbidity, no thinning (especially It is summer), adding quantity is generally in 0.6-0.7%

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## Packaging:

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

14MT/20'FCL (with Pallet)

20MT/20'FCL (without Pallet)