



Sodium carboxymethyl cellulose Sunrose® MAC Series

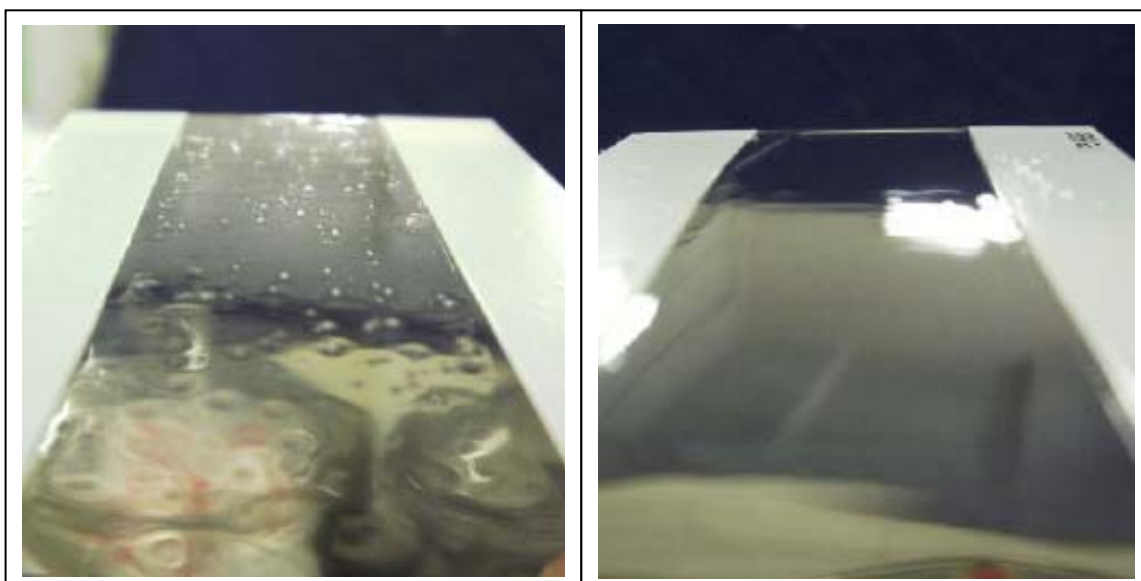
- To achieve a smoother, glossier coating -

Sunrose® (Carboxymethyl cellulose: CMC) is an **anionic water-soluble polymer** made from carboxymethylated natural cellulose with high purity.

It is not only harmless to humans but also biodegrade, **making it environmentally friendly.**

MAC Series is a special grade of Sunrose®. The **size of undissolved gel-particles** contained in the MAC Series' aqueous CMC-solution **has been reduced**, helping to **significantly decrease streaking and pinholes** to achieve a smoother, glossier coating.

Film of 1% aqueous CMC-solution (film thickness: 100µm)



General-purpose Sunrose®

Sunrose® MAC Series

For more details on our products, please contact:

Nippon Paper Industries Co.,Ltd. < <http://www.npchem.co.jp/form/index.html> >

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Sodium Carboxymethylcellulose

SUNROSE[®] MAC Series

-Procedure for Preparing CMC water solution-

Carboxymethylcellulose (CMC) is not easily dissolved and its preparation can be greatly affected by factors including the rotational speed of the mixer, the rate at which solutes are introduced, and the temperature of the solution. For best results, we recommend the following procedure:

[Recommended Procedure for Preparing 1% CMC Solution]

1. Measure 10g of dry CMC.
2. In a 1L beaker, measure 1000mL of deionized water at 25°C (for 10g dry-weight of CMC; CMC is very absorbent and the amount of water may need to be adjusted depending on the moisture level).
3. Insert stirrer fitted with a triangular blade so that the blade is 7cm from the bottom of the beaker.
4. While stirring continuously at 600rpm, add CMC slowly to the center of the vortex.
5. Continue stirring at 600rpm for 3 hours.

※ The CMC for a 1% solution should completely dissolve under these conditions.
For higher concentrations the time required may be longer.

<Notes>

CMC is water-absorbent and has very high water retention, and therefore clumps easily. To prevent this, add CMC slowly in small portions, allowing to dissolve completely between each addition.

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