



Technical Information

Water-insoluble sodium carboxymethyl cellulose

Sunrose® SLD Series

~ Pancake texture improvement ~

Sunrose SLD is an ultra-low substitution CMC that combines the properties of CMC with a cellulose powder, and is created by extremely mild carboxymethylation of cellulose. Carboxymethylated cellulose absorbs water and swells (turns into a gel owing to its water-insoluble property) which retains moisture in the pancake after cooking, thus improving the pancake texture.



•Formulation example

Recommendation

Ingredient	Control	①	②
Pancake mix	100.00%	100.00%	100.00%
Whole egg	40.00%	40.00%	40.00%
Milk	68.70%	68.70%	68.70%
SLD-F1	-	1.00%	-
F10MC	-	-	1.00%

◆Method

Milk and eggs were mixed with a commercially available pancake mix. (SLD-F1, F10MC were mixed into the pancake mix in advance)
After resting the mixture for 5 minutes, pancakes were cooked on a hotplate for 5 minutes at 160°C.

•Tasting evaluation

Evaluated item	Control	①	②
Immediately after cooking	3.0	4.0	2.5
4 hrs after cooking	2.5	3.5	2.0
20 hrs after cooking	2.0	3.5	2.0
30 hrs after cooking	1.5	3.5	2.0

◆Evaluation method

After cooking, pancakes were first cooled and then wrapped for storage at room temperature. The panel of judges tasted the pancakes immediately after cooking, 4 hours after cooking, 20 hours after cooking and 30 hours after cooking. They were asked to assess the moistness of the pancakes on a scale of 1~5. (Excellent: 5; Poor: 1)

•Workability

- ①. Although somewhat viscose, there was no variation compared to the control, i.e. no workability problems.
- ②. Very high viscosity. Bad workability and difficult to cook.

Effects of adding Sunrose Series

- § . Maintains moistness and pleasantly reinforces texture.
- § . Does not create excessive viscosity – normal workability is maintained.

For more details on our products, please contact:

Nippon Paper Industries Co.,Ltd.
Chemical Division
Sales Department No.2
Kansai Sales Department

< <http://www.npchem.co.jp/form/index.html> >
4-6, Kandasurugadai, Chiyoda-ku, Tokyo 101-0062, Japan
Phone: +81-3-6665-5900 Facsimile: +81-3-6665-0360
MID Imabashi Building, 2-3-16, Imabashi, Chuo-ku, Osaka 541-0042, Japan
Phone: +81-6-6228-6300 Facsimile: +81-6-6228-6303