

MASEMUL® EM 3004

Low Fat Spread Application

Low fat spread contains high proportion of water, emulsifier and stabilizer. MASEMUL® EM 3004 provides stable emulsion in low fat spread production. It is designed to be incorporated in bread and other yeast goods application by enhancing its fresh keeping quality and superior texture.

MASEMUL® EM 3004 is an emulsifier blends in paste form invented for low fat spread application.

Features of MASEMUL® EM 3004

- Made of non-GMO and vegetable origin of fats and oils.
- Easy handling as emulsifier blends in paste form.

Formulation Considerations while Using MASEMUL® EM 3004

- Dissolve MASEMUL® EM 3004 in 5 parts of fat blend.
- Optimum dosage of MASEMUL® EM 3004: 1.0% - 1.5% in total formulation.

Advantages of Using MASEMUL® EM 3004

- Reduces the surface tension between the water and the fat phases.
- Facilitates emulsification by providing a stable and homogeneous emulsion.
- Imparts a fine and stable water dispersion.
- Stabilizes water in oil emulsion during emulsification and crystallization process.

Outcome & Results

- Improve emulsion stability of low fat spread.



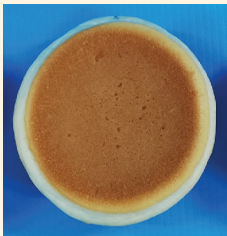
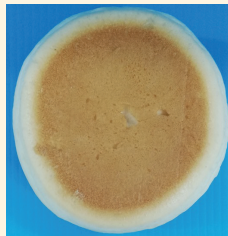


The emulsion stability evaluation was conducted at 60°C up to 6 hours by comparing the performance between Low Fat Spread (using MASEMUL® EM 3004) and Low Fat Spread (using single emulsifier).

	1 Hour	6 Hours
Emulsion Stability at 60°C	 Low Fat Spread (using MASEMUL® EM 3004) Low Fat Spread (using single emulsifier)	 Low Fat Spread (using MASEMUL® EM 3004) Low Fat Spread (using single emulsifier)

Low Fat Spread (using MASEMUL® EM 3004) has better emulsion stability as compared to Low Fat Spread (using single emulsifier).

The evaluation was conducted using sweet bun recipe at 10% of Commercial Low Fat Spread and Low Fat Spread by using MASEMUL® EM 3004.

	Commercial Low Fat Spread	Low Fat Spread (using MASEMUL® EM 3004)
Dough Characteristic	Smooth, very sticky and less elastic	Smooth, less sticky and slightly elastic
Bun Volume (ml)	182	184
Specific Volume (ml/g)	4.09	4.08
Height (mm)	41.90	43.50
Width (mm)	88.00	85.70
Photo:		
Side View		 comparable in bun volume
Bottom View	 flattened	 less flattened

Low Fat Spread by using MASEMUL® EM 3004 contributes comparable bun volume, specific volume and height and the bun tends to be less flattened as compared to Commercial Low Fat Spread in sweet bun application.

Disclaimer:

The information contained herein is to our best knowledge true and accurate, but all recommendations or suggestions are made without guarantee since we can neither anticipate or control the different conditions under which this information and our products are used.