

# Protein Replacement Thermised Yoghurt



IDEA	SOLUTION
Control costs in yoghurt while retaining quality and appeal	An affordable stirred yoghurt with appealing qualities and appearance.

**THERMTEX®** modified starch is designed for use in formulations where optimum heat penetration and high final viscosity are required. It is resistant to high temperatures, low-pH and shear. It is highly functional in yoghurt white mass and develops a full bodied very smooth texture with a pleasant meltaway in protein-reduced applications.

**Ticalose® CMC 400** Granular Powder is a medium-viscosity coarse carboxymethylcellulose (CMC) derived from cellulose. Soluble in both cold or hot water, it remains stable over a pH range of four to ten and is compatible with other hydrocolloids, proteins and sugars. It can control ice crystal growth and texture in frozen dairy products and can protect proteins in acidified dairy products. With strong moisture-retention capabilities, it is also ideal for use in low-calorie products.

## Thermised Yoghurt Recipe

Ingredients	% as is
Skimmed milk	86.08
Cream (40% fat)	3.50
Sugar	8.00
<b>THERMTEX®</b>	<b>2.00</b>
<b>Ticalose® CMC 400 Granular Powder</b>	<b>0.40</b>
Culture	0.02
<b>Total</b>	<b>100.00</b>

## Preparation

1. Add the starch and sugar to the milk and cream, reserving a sufficient amount of milk for a 5% CMC/milk solution.
2. Preheat to 62°C.
3. Homogenise at 150/50 bar.
4. Pasteurise at 95°C and hold for five minutes.
5. Cool to 43°C and pour into fermentation beakers.
6. Inoculate with culture and place the beakers into a water bath.
7. Stop fermentation at pH 4.5 by stirring and cooling to 20°C.
8. Prepare a 5% CMC/milk solution and mix it with a high-speed mixer at 7000 rpm for five minutes. Blend all ingredients together.
9. Pasteurise at 76°C and hold for 15 seconds.
10. Fill into containers at 25°C and refrigerate.

## Nutritional Information

Nutrients per 100g

<b>ENERGY</b> (kJ / kcal)	<b>336 / 79</b>
<b>FAT</b> (g)	<b>1.5</b>
of which <b>SATURATES</b> (g)	<b>1.1</b>
<b>CARBOHYDRATE</b> (g)	<b>13.5</b>
of which <b>SUGARS</b> (g)	<b>11.7</b>
<b>DIETARY FIBRE</b> (g)	<b>0.3</b>
<b>PROTEIN</b> (g)	<b>3.0</b>
<b>SALT</b> (g)	<b>0.2 [199mg]</b>

## Allergen Information

Contains milk and products thereof.

THERMTEX® contains Sulphur Dioxide (SO<sub>2</sub>), typically <10 ppm.

INNOVATE WITH US: [ingredientidealabs.com](http://ingredientidealabs.com)

Ingredion Germany GmbH  
Gruener Deich 110 20097  
Hamburg Germany

The INGREDION, INGREDION IDEA LABS, THERMTEX and Ticalose marks and logos are trademarks of the Ingredion group of companies.  
All rights reserved. All contents copyright ©2018.