



QUICK KONJAC

Natural thickener

1. Quick Konjac properties
2. Viscosity tolerance
3. Synergy
4. Applications

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Process of regular Konjac

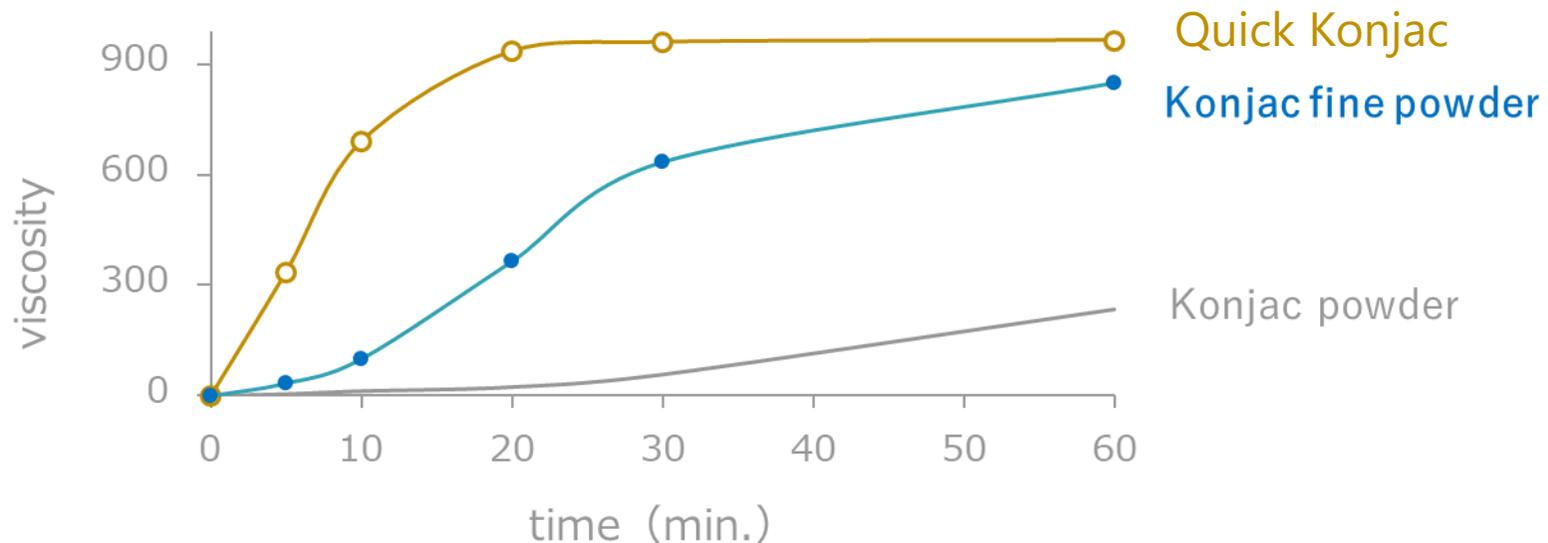
Obtention process by pulverizing Konjac potato



The traditional manufacturing process was very simple.

Dissolution

Konjac powder dissolves very slowly into liquid

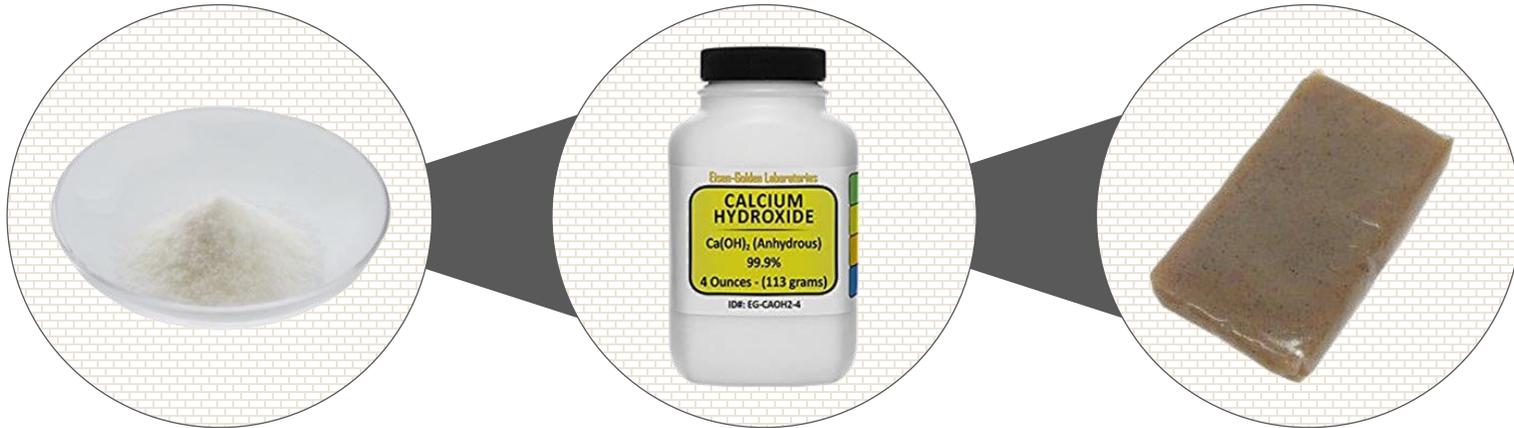


A slow dissolution speed leads to a low risk of lump. Refined powder can be obtained by separating the starch from the Konjac powder.

Quick Konjac properties

Gelling

Form a gel under alkaline conditions

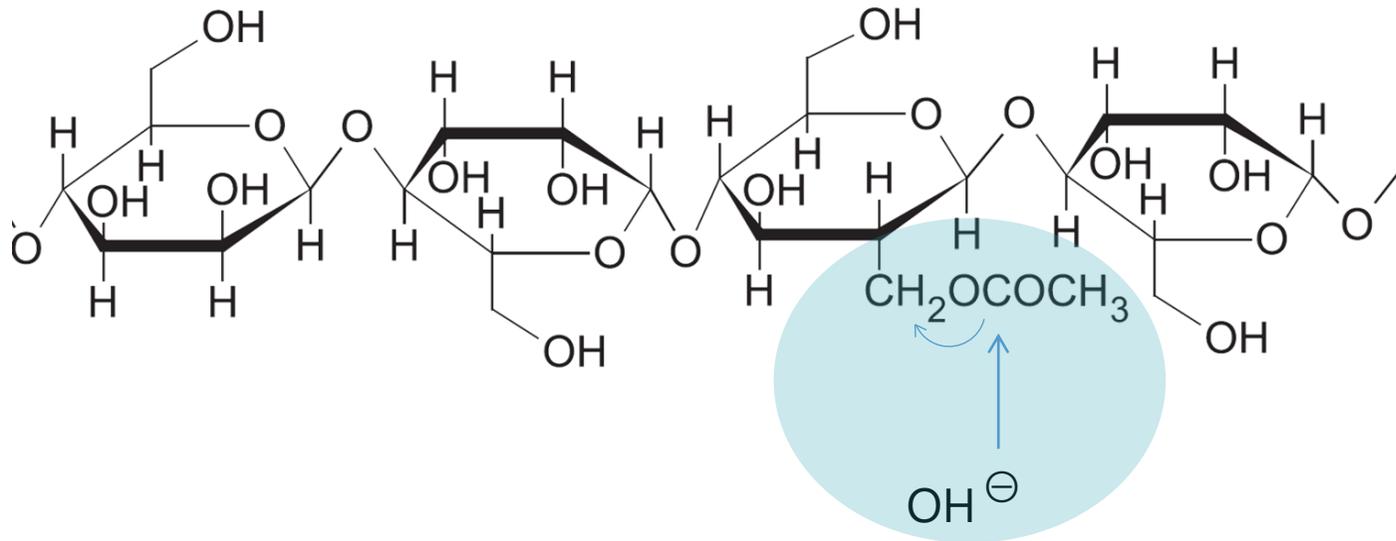


The gel formed is heat stable.

Quick Konjac properties

Mechanism

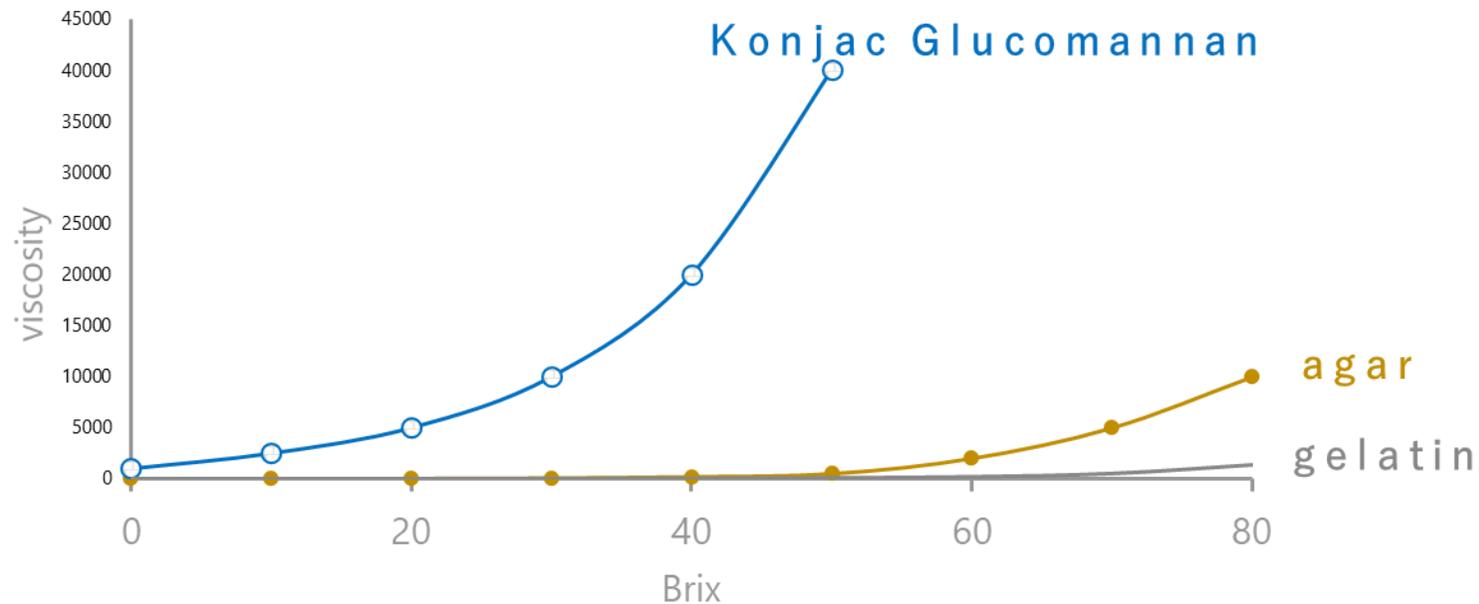
The gel forming process at a molecular scale



Hydrogen bond is caused by deacetylation

Mechanism

Viscosity VS Brix



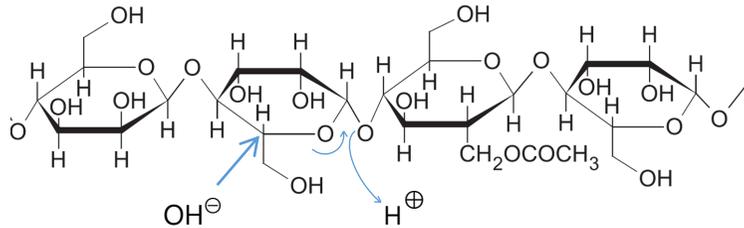
Shows very high viscosity even in high BRIX conditions.

Quick Konjac properties

Caution about regular Konjac

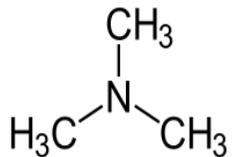
- General Konjac gels are not resistant against acid

Glucomannan carries its own enzyme which disassemble itself and lose viscosity



- General Konjac powders have a unique smell

Konjac powder has a unique and strong smell alike raw fish, caused by the action of the disassembling protein



Trimethylamine

- General Konjac have a high number of bacteria



Due to 2 things : the raw material is harvested from the ground & the manufacturing process is very simple

Heat or ethanol treatment is necessary to control the bacteria number

VS QUICK KONJAC



Stable
Viscosity



Low
Smell



Low amount of
Bacteria

Features VS Xanthan Gum

REGULAR KONJAC

- 1 Water soluble
- 2 Low risk of Lump
- 3 High Viscosity
- 4 Low Stringiness

QUICK KONJAC

- 1 Water soluble
- 2 Low risk of Lump
- 3 High Viscosity
- 4 Low Stringiness
- 5 Low amount of Bacteria
- 6 Stable Viscosity
- 7 Low Smell

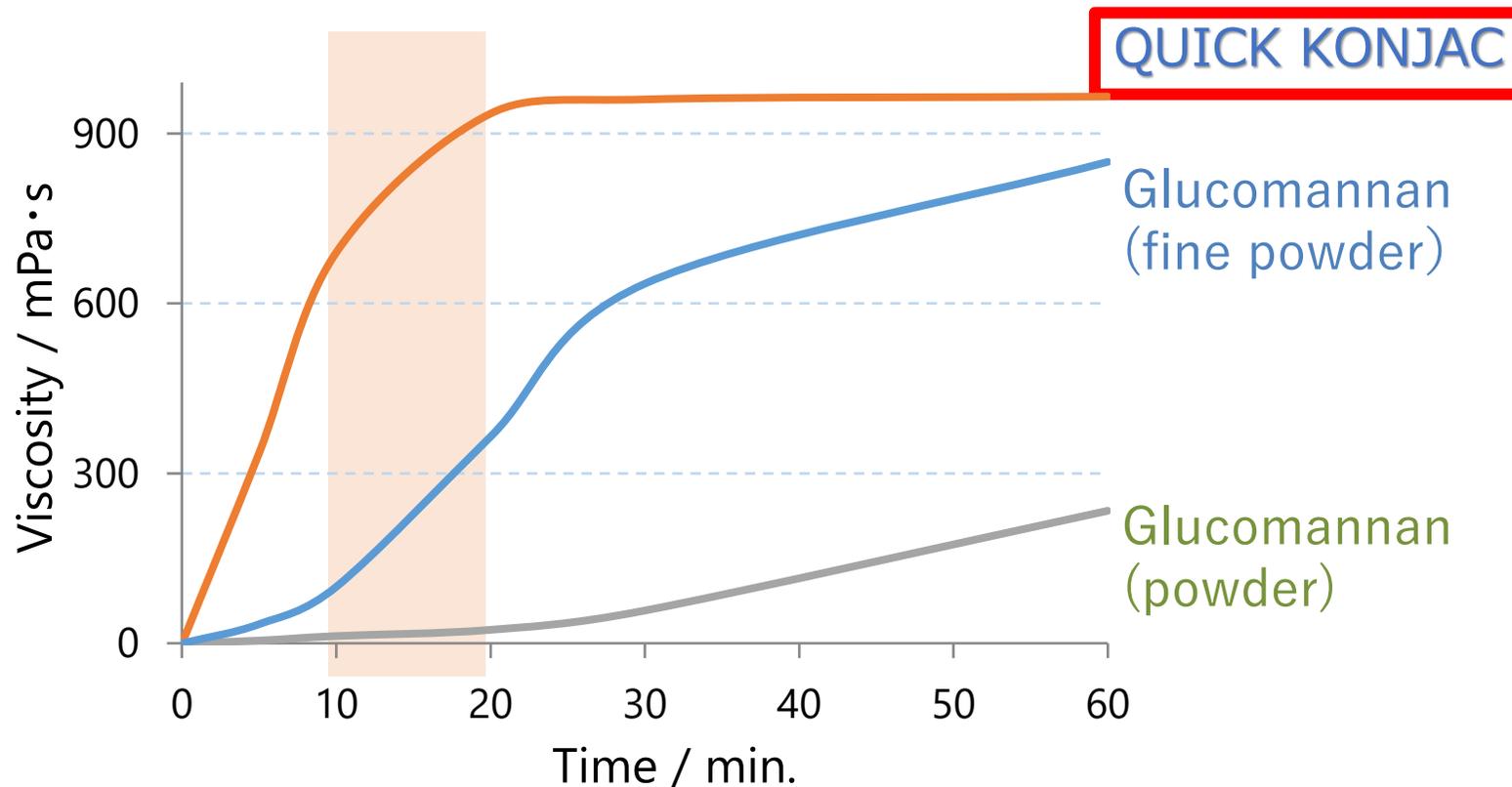


Quick Konjac properties

Quick viscosity appearance

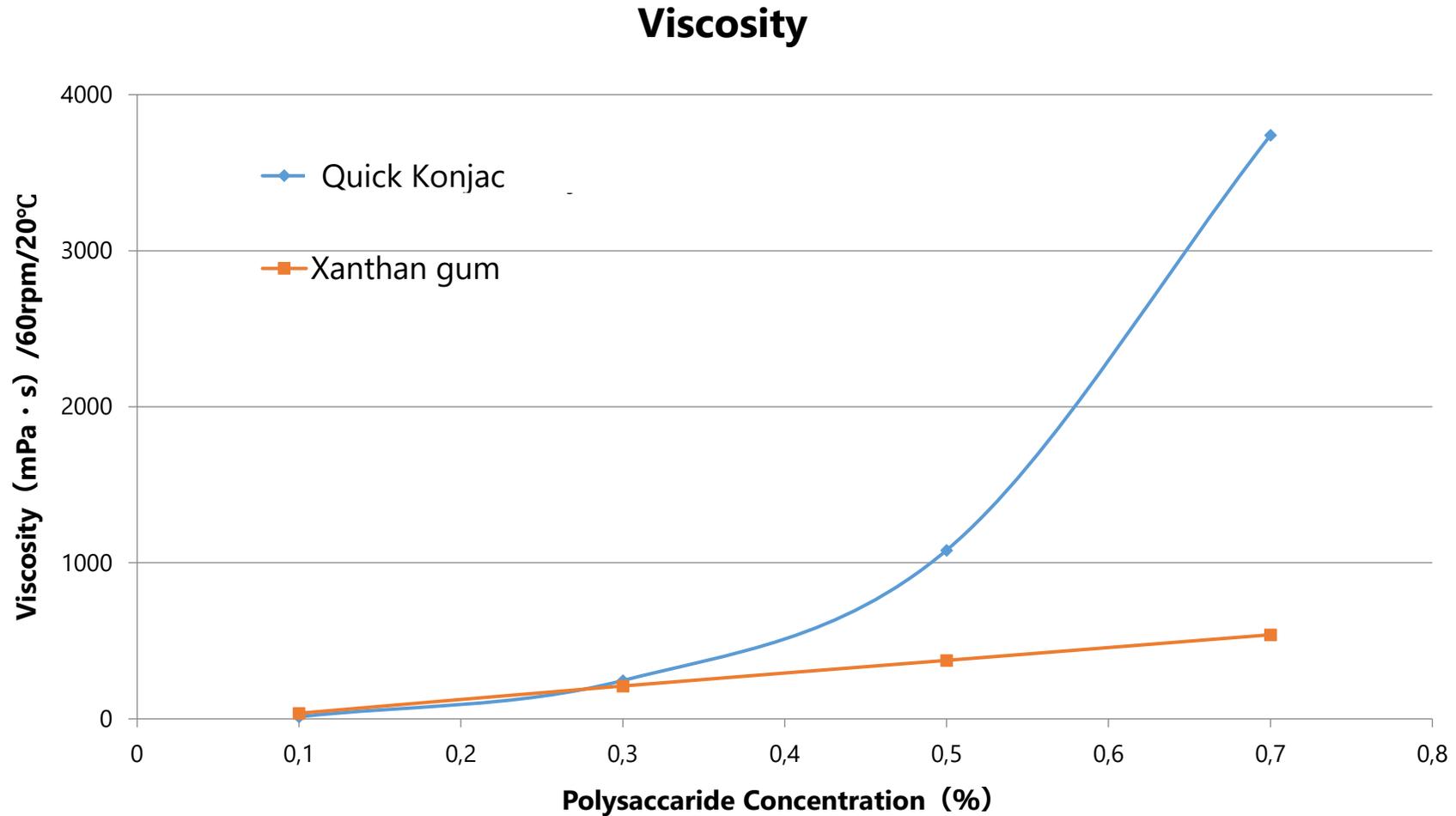
Viscosity will be in maximum figure in 10~20min.

➤ (0.5% concentration)



Quick Konjac has excellent viscosity properties in a very low amount of time

Viscosity according to concentration



Quick Konjac shows exponential viscosity

Quick Konjac properties

Viscosity appearance

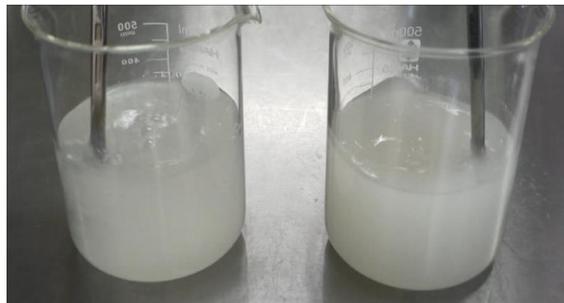
Quick appearance of viscosity.

Beginning



Regular Glucomannan **Quick Konjac**

Stirring



Regular Glucomannan **Quick Konjac**

1 MIN

10 MIN



Regular Glucomannan **Quick Konjac**



Quick Konjac

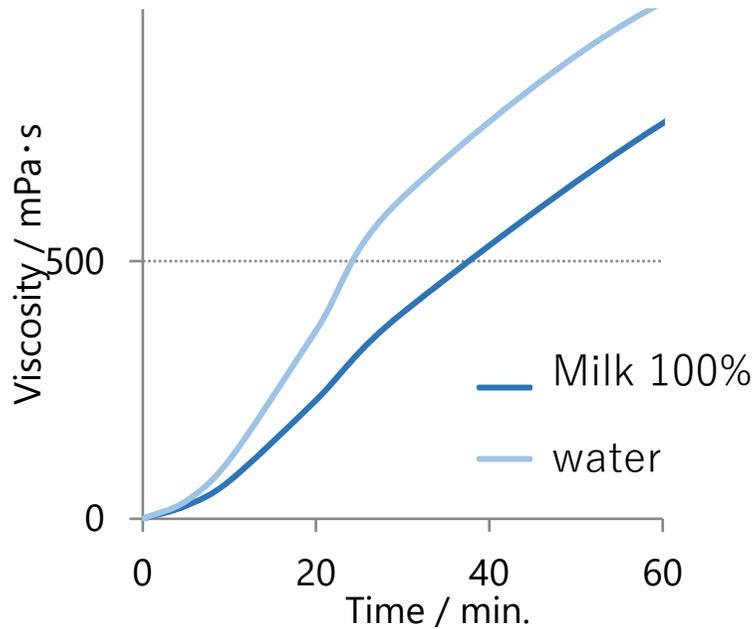
1. Basic features of general Konjac Glucomannan
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- 3. Viscosity tolerance**
4. Synergy
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Viscosity tolerance

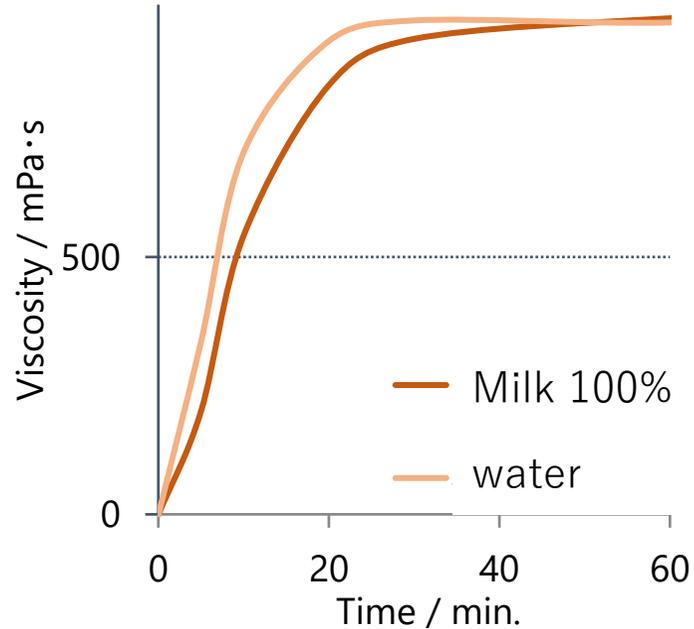
Milk (Ca) tolerance

Express high and stable viscosity

Regular Glucomannan



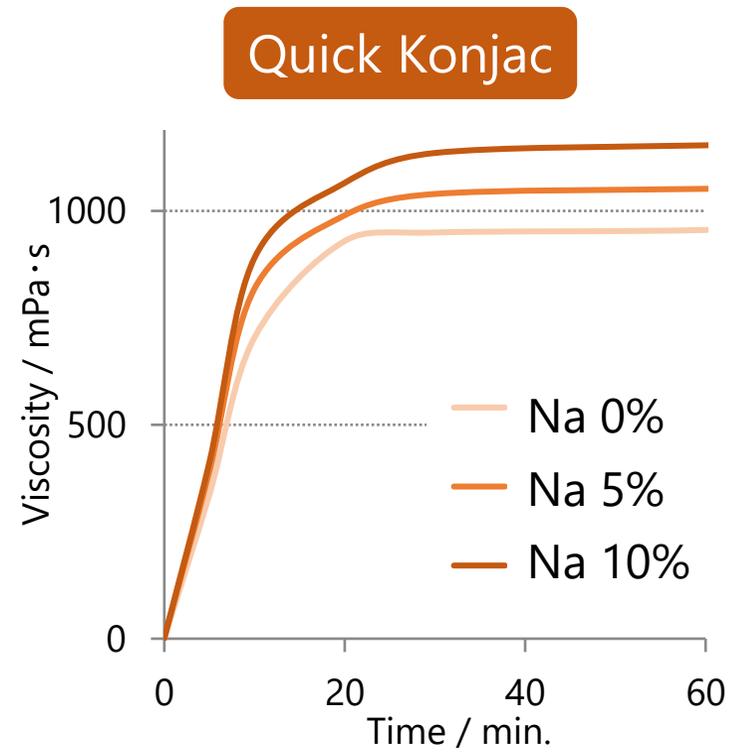
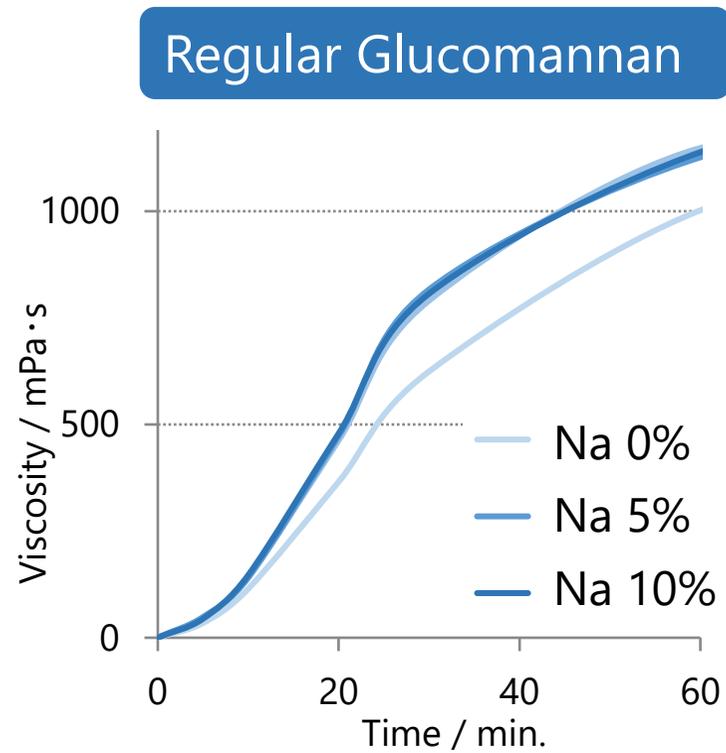
Quick Konjac



Viscosity tolerance

Salt (Na) tolerance

Express high and stable viscosity



Other tolerances

➤ **pH tolerance : 5 to 9**

➤ **Alcohol tolerance :**

1 Reaction with alcohol

- No reactions are found between alcohol, sugar alcohol and polyalcohol so far.

2 Other influences

- When alcohol content is above 30%, alcohol prevents Quick Konjac from absorbing water which leads to low viscosity.
- When solid content is above 30% viscosity will be low just like the situation with alcohol.

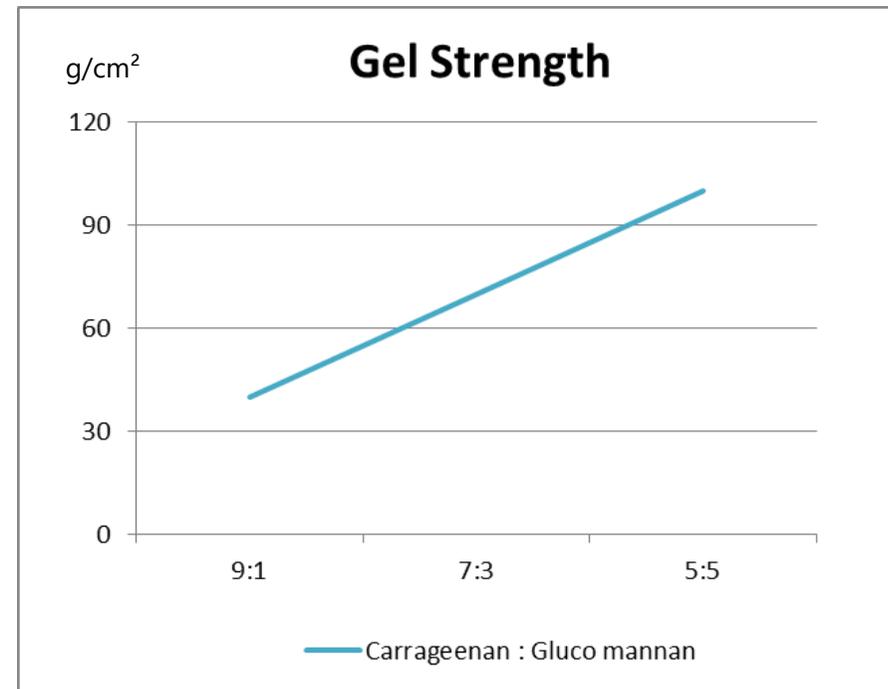
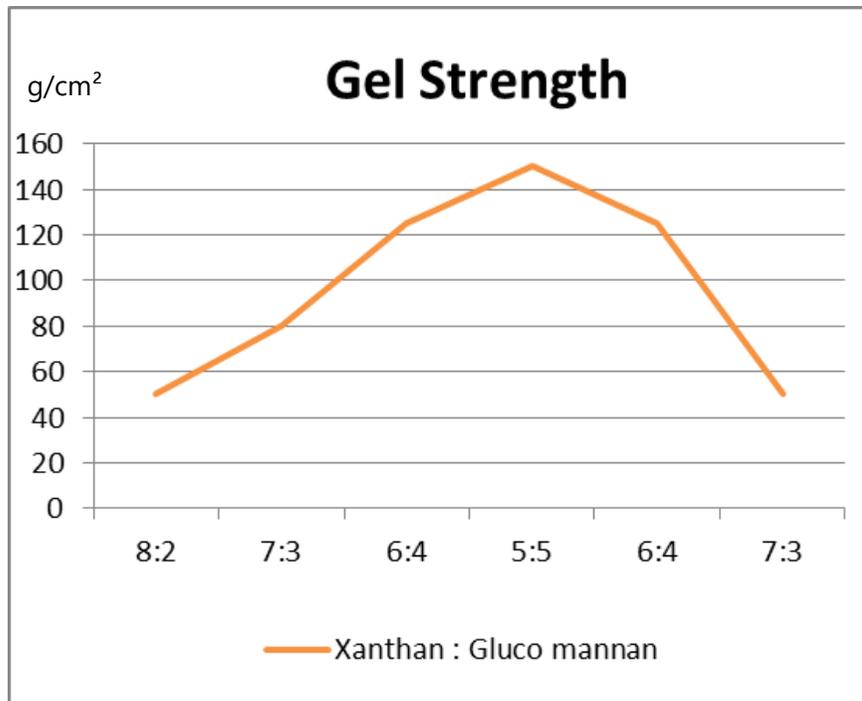
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Hydrocolloid reaction

With Xanthan Gum and Carrageenan

*Both reaction require heat above 90°C to form gel

*Ratio of 5 : 5 shows highest strength



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Applications



Sponge Cake

Basic recipe	20% additional water recipe	20% additional water recipe with QUICK KONJAC																														
																																
<table border="0"> <tr><td>Whole egg</td><td>2 0 0 g</td></tr> <tr><td>Sugar</td><td>1 0 0 g</td></tr> <tr><td>Flour</td><td>1 0 0 g</td></tr> <tr><td>Butter</td><td>3 0 g</td></tr> </table>	Whole egg	2 0 0 g	Sugar	1 0 0 g	Flour	1 0 0 g	Butter	3 0 g	<table border="0"> <tr><td>Whole egg</td><td>2 0 0 g</td></tr> <tr><td>Sugar</td><td>1 0 0 g</td></tr> <tr><td>Flour</td><td>1 0 0 g</td></tr> <tr><td>Butter</td><td>3 0 g</td></tr> <tr><td>Water</td><td>2 0 g</td></tr> </table>	Whole egg	2 0 0 g	Sugar	1 0 0 g	Flour	1 0 0 g	Butter	3 0 g	Water	2 0 g	<table border="0"> <tr><td>Whole egg</td><td>2 0 0 g</td></tr> <tr><td>Sugar</td><td>1 0 0 g</td></tr> <tr><td>Flour</td><td>1 0 0 g</td></tr> <tr><td>Butter</td><td>3 0 g</td></tr> <tr><td>Water</td><td>2 0 g</td></tr> <tr><td>QUICK KONJAC</td><td>0.5 g</td></tr> </table>	Whole egg	2 0 0 g	Sugar	1 0 0 g	Flour	1 0 0 g	Butter	3 0 g	Water	2 0 g	QUICK KONJAC	0.5 g
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QUICK KONJAC	0.5 g																															
<p>*Texture : Dry and partially hard.</p> <p>*Height : Good</p>	<p>*Texture : Soft and moistured</p> <p>*Height : Low because of adding excess water</p>	<p>*Texture : Soft and moistured</p> <p>*Height : High enough by QUICK KONJAC's effect</p>																														

Applications

Cake

GOOD effects

- Keep moisture and height
- PREVENT fruits inside to sink.



Basic recipe

1 0 %
water added

1 0 %
Water added with
QUICK KONJAC

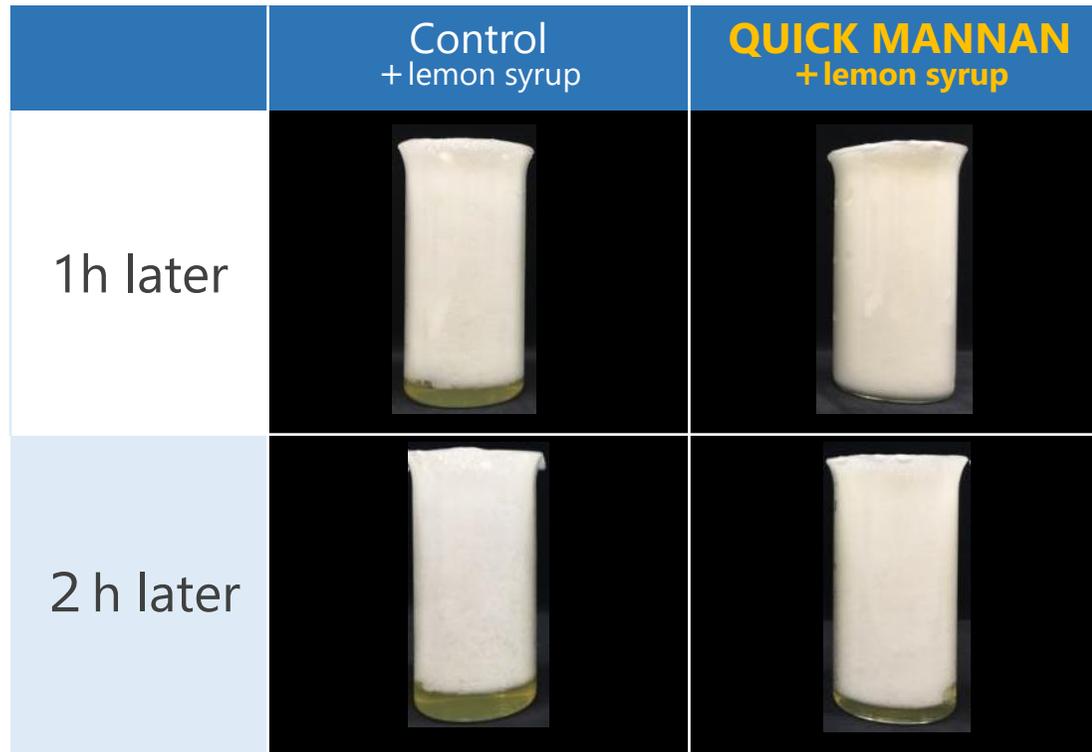


Basic dosage:

- ① Add extra 10~20% amount of water to your basic recipe
- ② Add 0.5% of QUICK KONJAC against flour weight.

Merengue

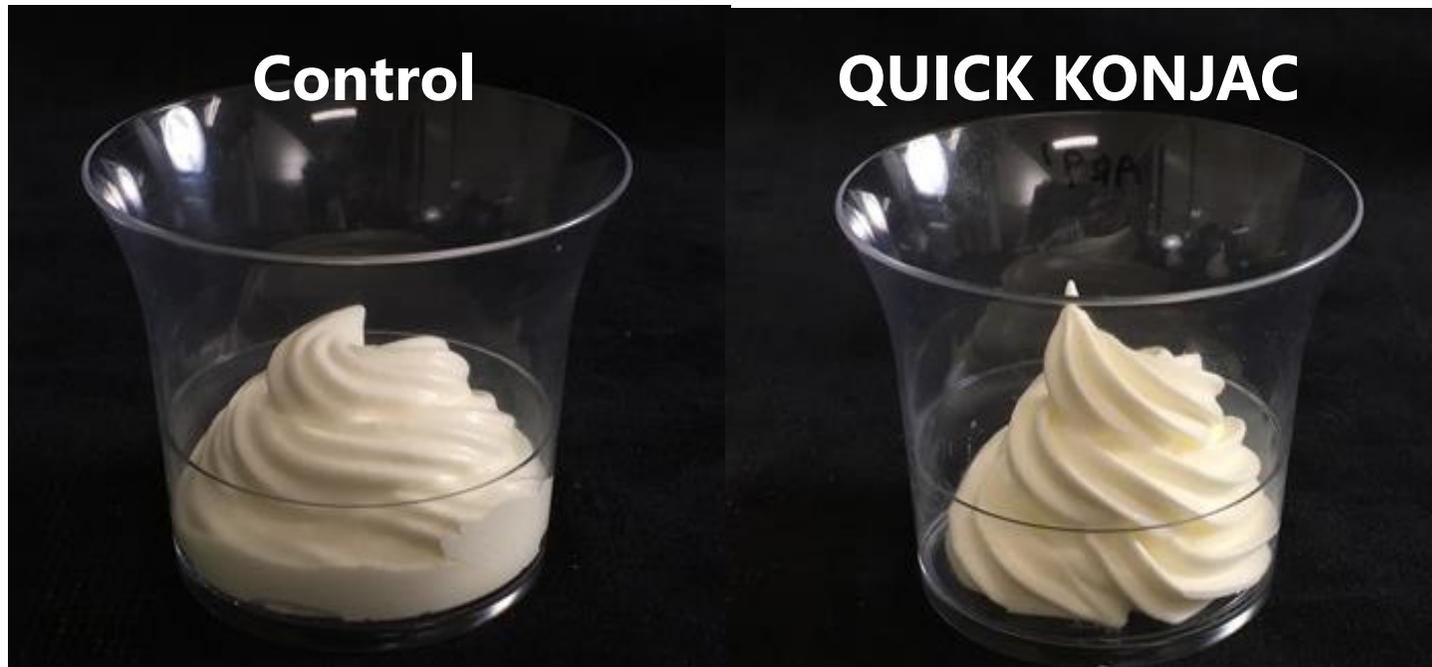
QUICK MANNAN work as a stabilizer



Dosage of QUICK MANNAN **0.5%**

Whipped cream

Quick konjac works as a stabilizer



Dosage of QUICK KONJAC **0.5%**

Thank you very much

for your continuous support
to IWASE COSFA

Contact us

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