



INA FOOD INDUSTRY CO.,LTD.

 IWASE COSFA EUROPE



INAGEL QUICK KONJAC TR

Natural thickener

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

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Process of regular Konjac

Obtention process by pulverizing Konjac potato

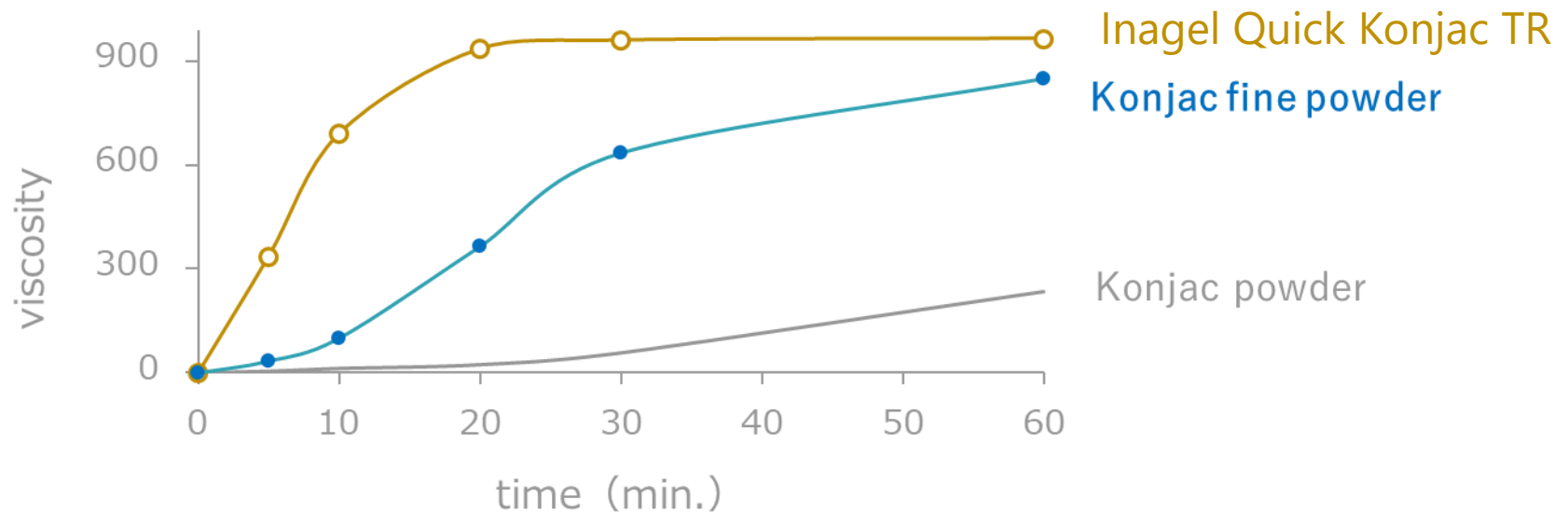


The traditional manufacturing process was very simple.

Inagel Quick Konjac TR properties

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.

Inagel Quick Konjac TR properties

Gelling

Form a gel under alkaline conditions

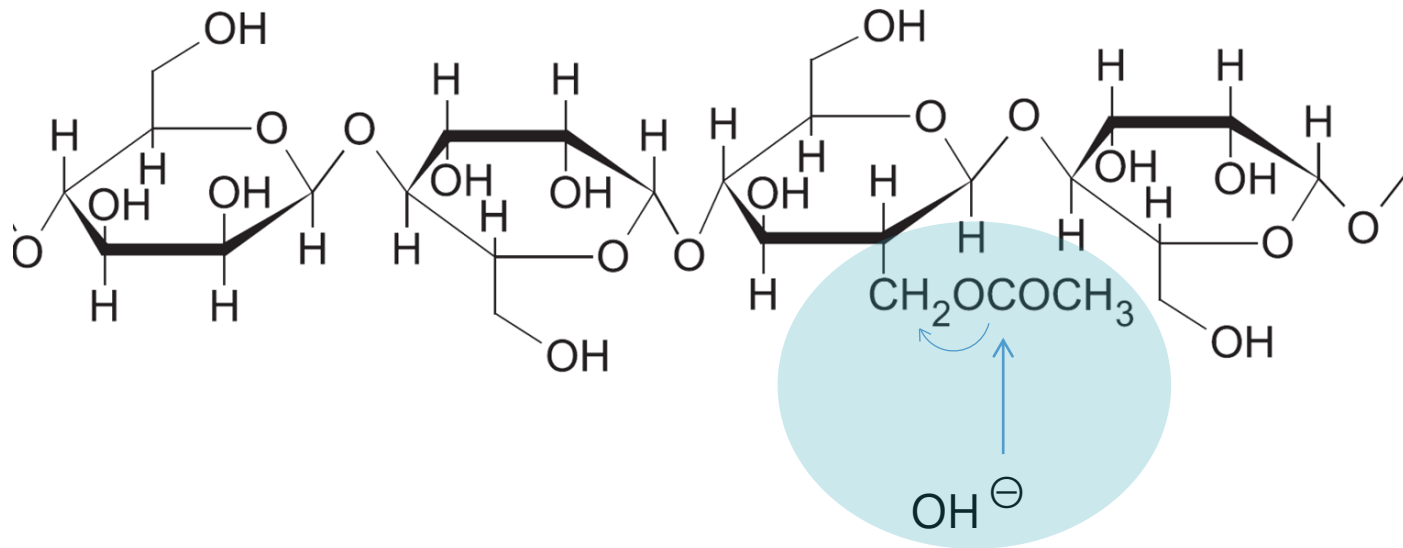


The gel formed is heat stable.

Inagel Quick Konjac TR properties

Mechanism

The gel forming process at a molecular scale

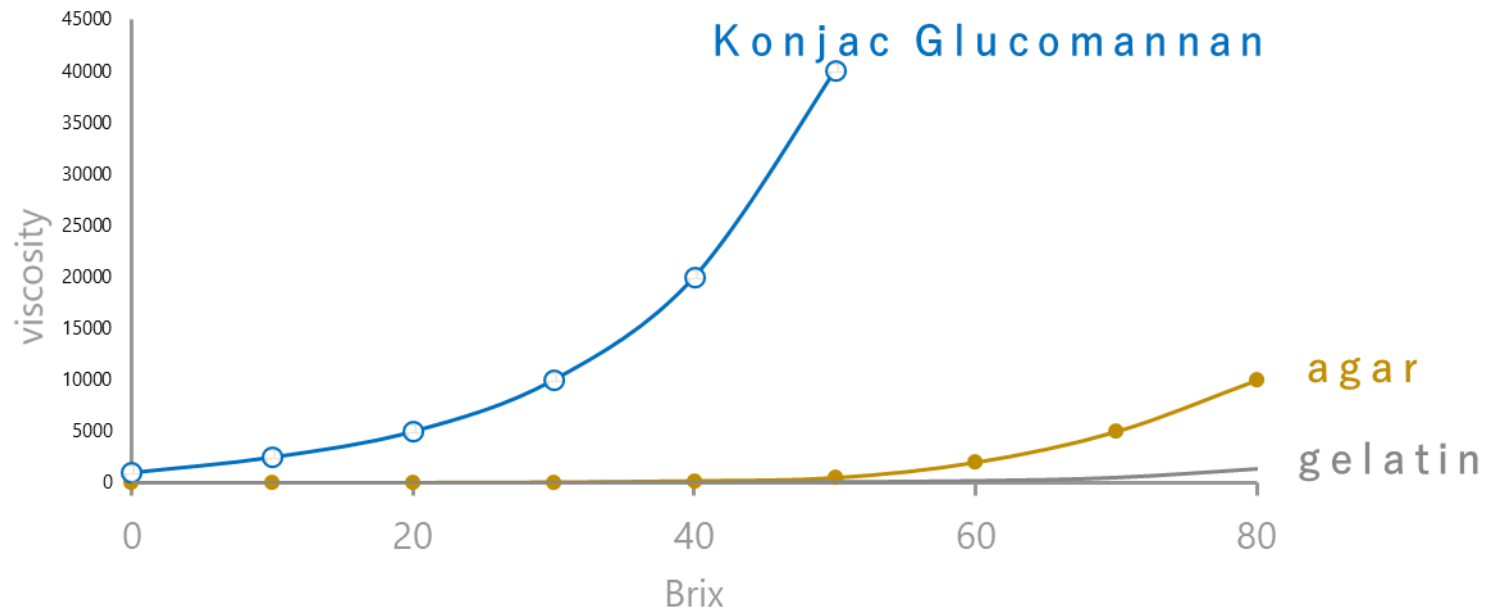


Hydrogen bond is caused by deacetylation

Inagel Quick Konjac TR properties

Mechanism

Viscosity VS Brix



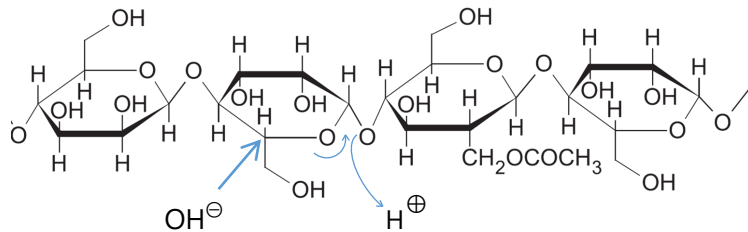
Shows very high viscosity even in high BRIX conditions.

Inagel Quick Konjac TR properties

Caution about regular Konjac

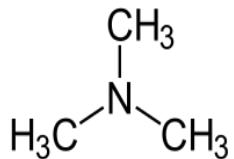
- General Konjac gels are not resistant against acid

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 INAGEL QUICK KONJAC TR



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

INAGEL QUICK KONJAC TR

- 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

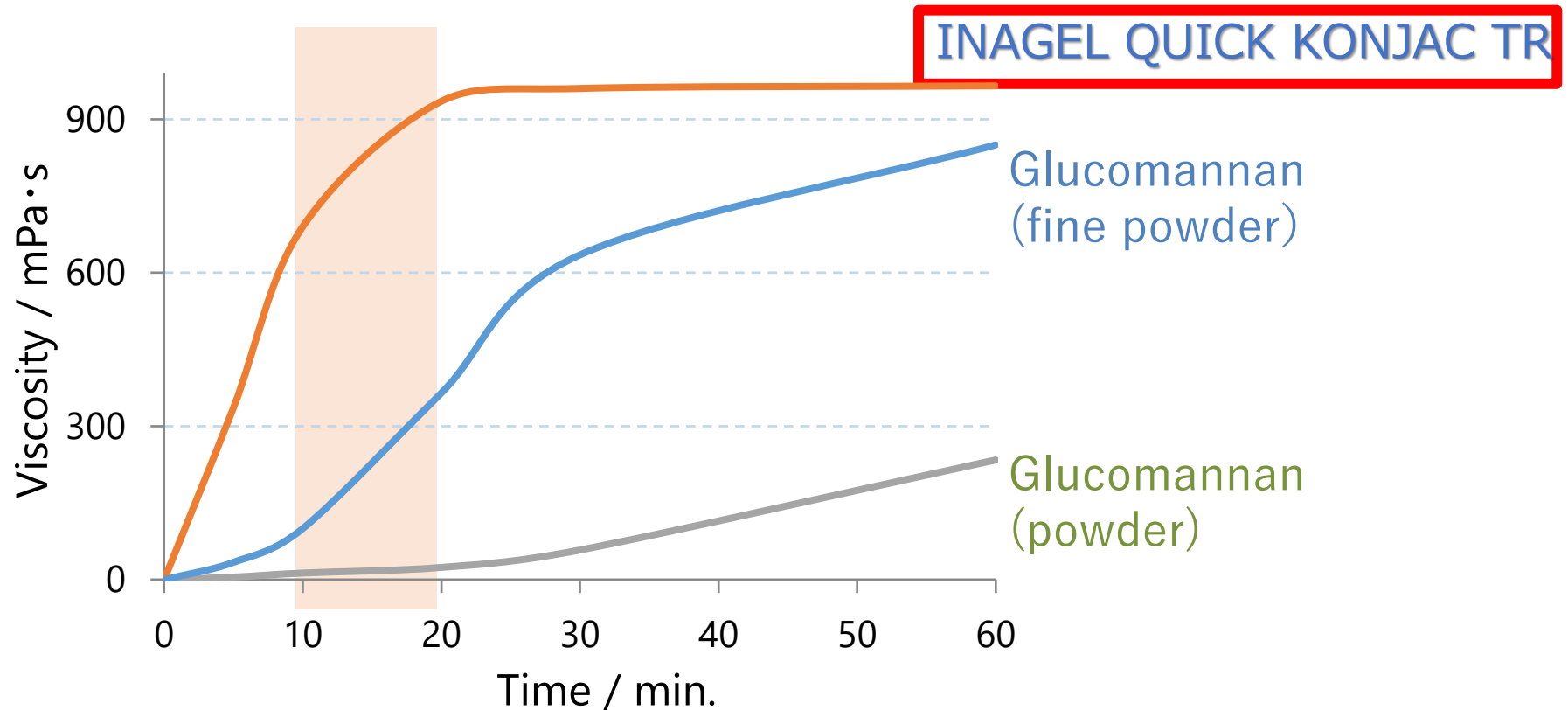


Inagel Quick Konjac TR properties

Quick viscosity appearance

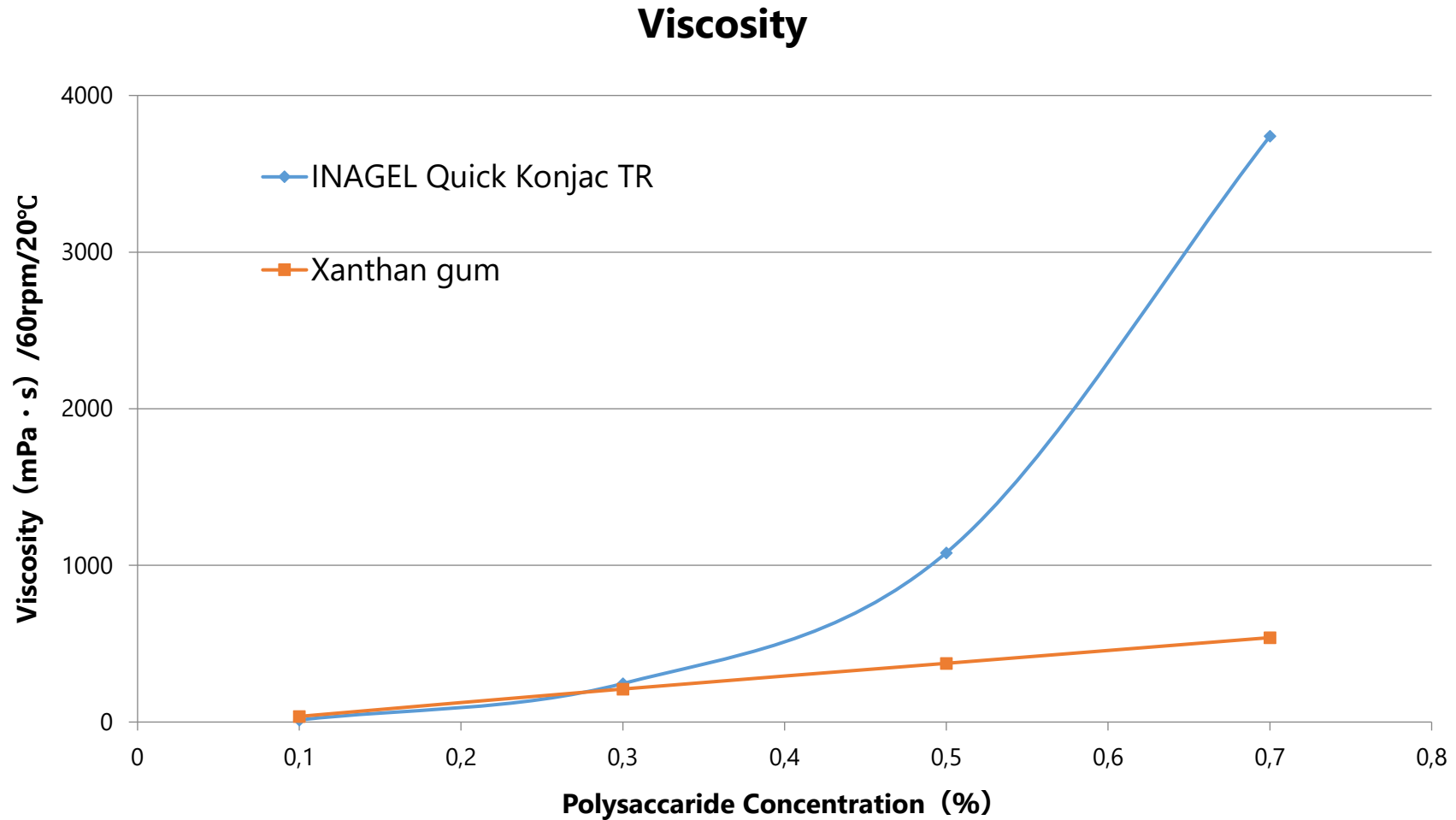
Viscosity will be in maximum figure in 10~20min.

➤ (0.5% concentration)



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

Viscosity according to concentration



Inagel Quick Konjac TR shows exponential viscosity

Inagel Quick Konjac TR properties

Viscosity appearance

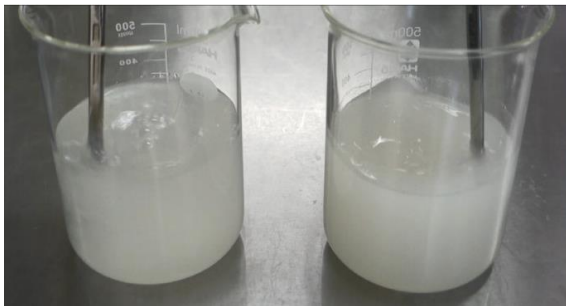
Quick appearance of viscosity.

Beginning



Regular
Glucomannan **Quick Konjac
TR**

Stirring



Regular
Glucomannan **Quick Konjac
TR**

1 MIN

10 MIN



Regular
Glucomannan **Quick Konjac
TR**



**Quick Konjac
TR**

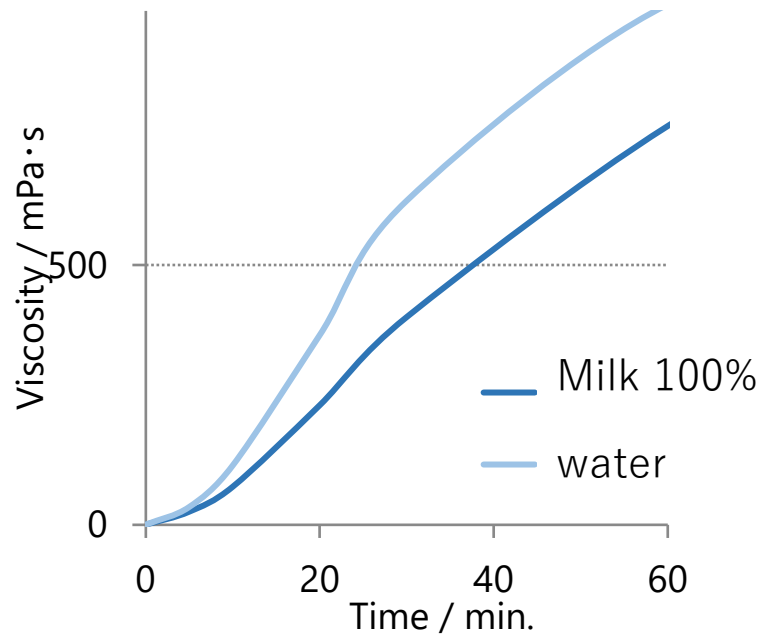
1. Basic features of general Konjac Glucomannan
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Viscosity tolerance

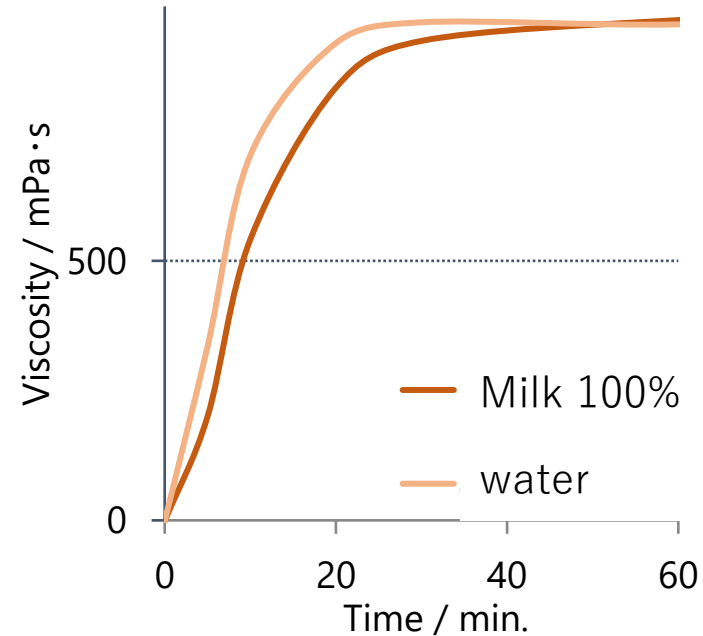
Milk (Ca) tolerance

Express high and stable viscosity

Regular Glucomannan



Quick Konjac TR

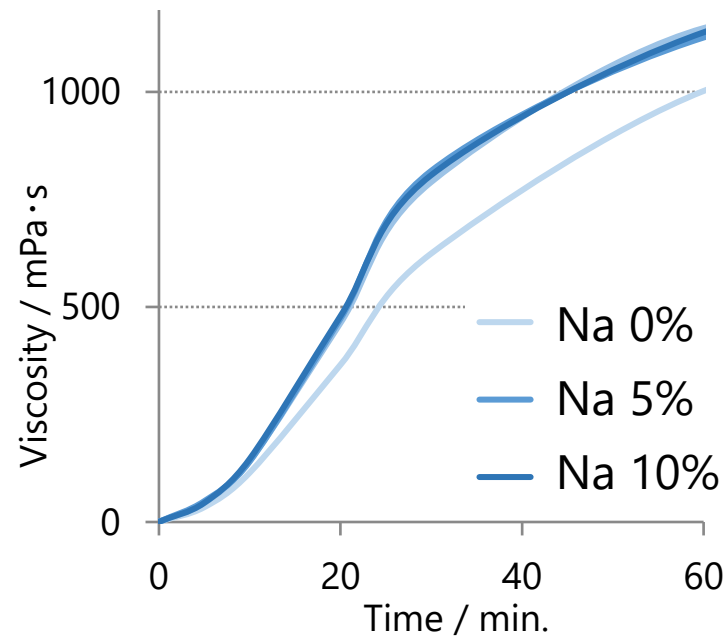


Viscosity tolerance

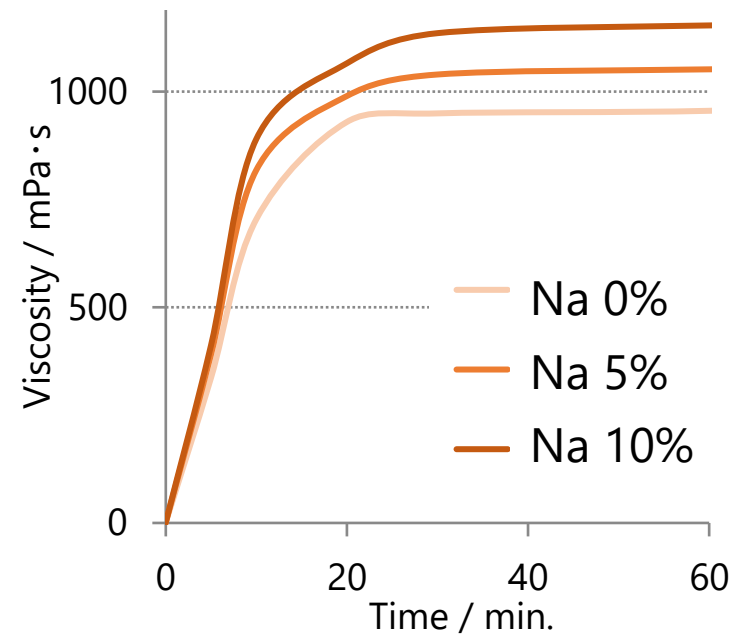
Salt (Na) tolerance

Express high and stable viscosity

Regular Glucomannan



Quick Konjac TR



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

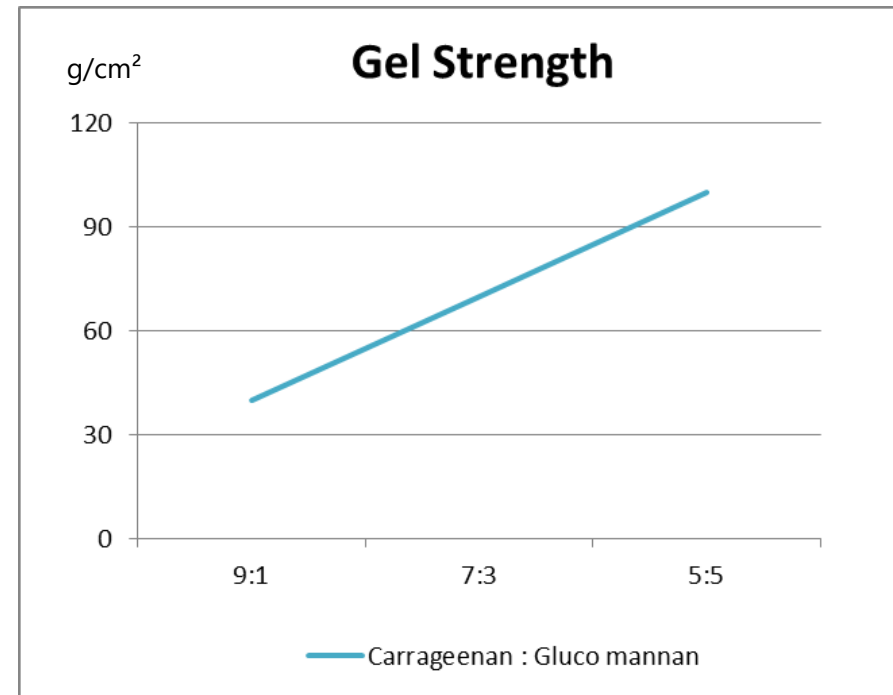
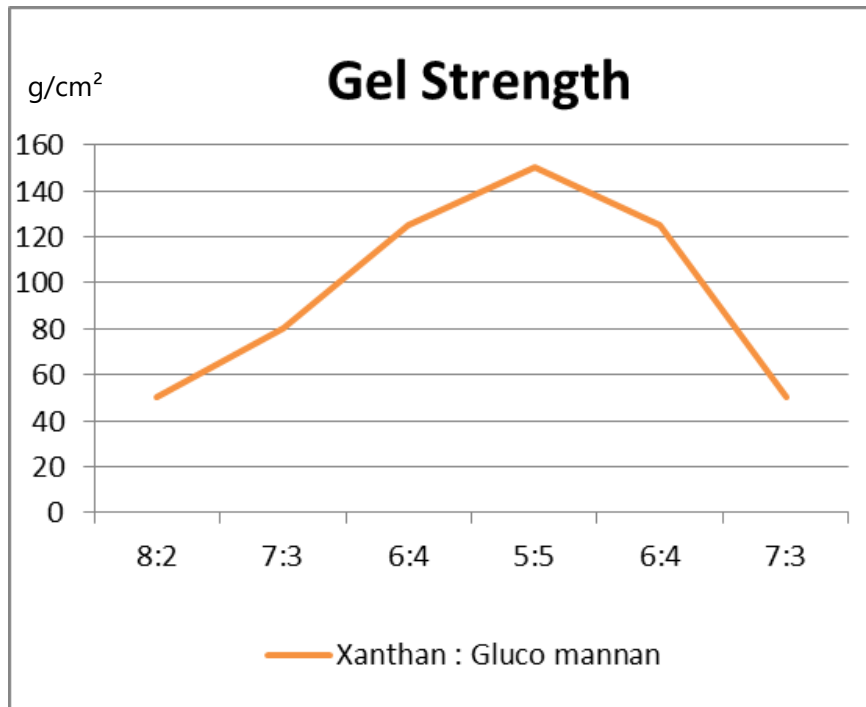
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Hydrocolloid reaction

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 TR |
|---|---|--|
|  |  |  |
| Whole egg 2 0 0 g Sugar 1 0 0 g Flour 1 0 0 g Butter 3 0 g | Whole egg 2 0 0 g Sugar 1 0 0 g Flour 1 0 0 g Butter 3 0 g Water 2 0 g | 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 TR 0.5 g |
| *Texture : Dry and partially hard. *Height : Good | *Texture : Soft and moistured *Height : Low because of adding excess water | *Texture : Soft and moistured *Height : High enough by QUICK KONJAC TR's effect |

Applications

Cake

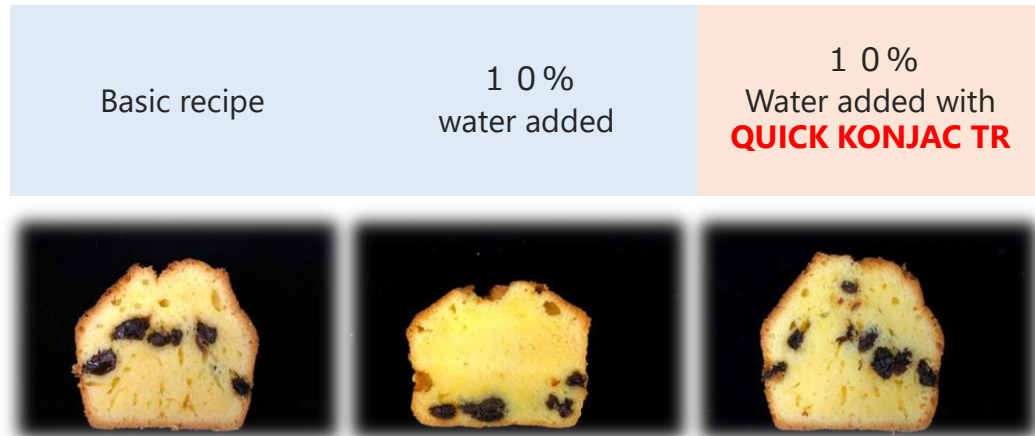
GOOD effects

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



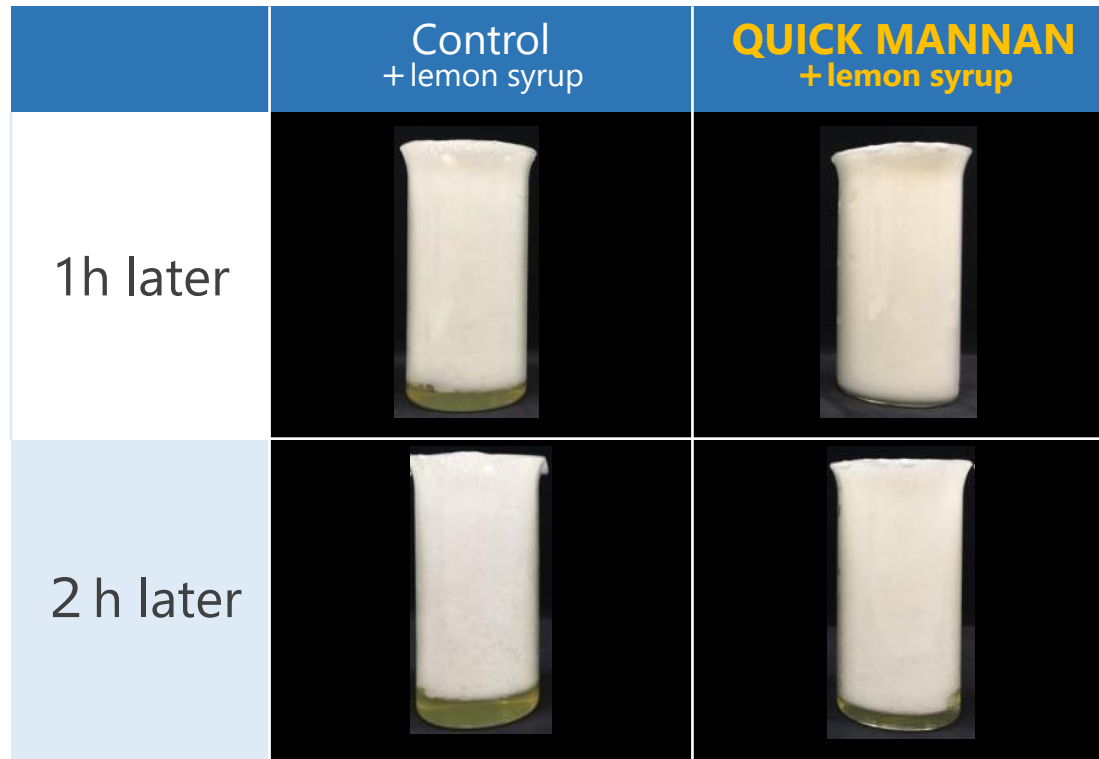
Basic dosage:

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



Merengue

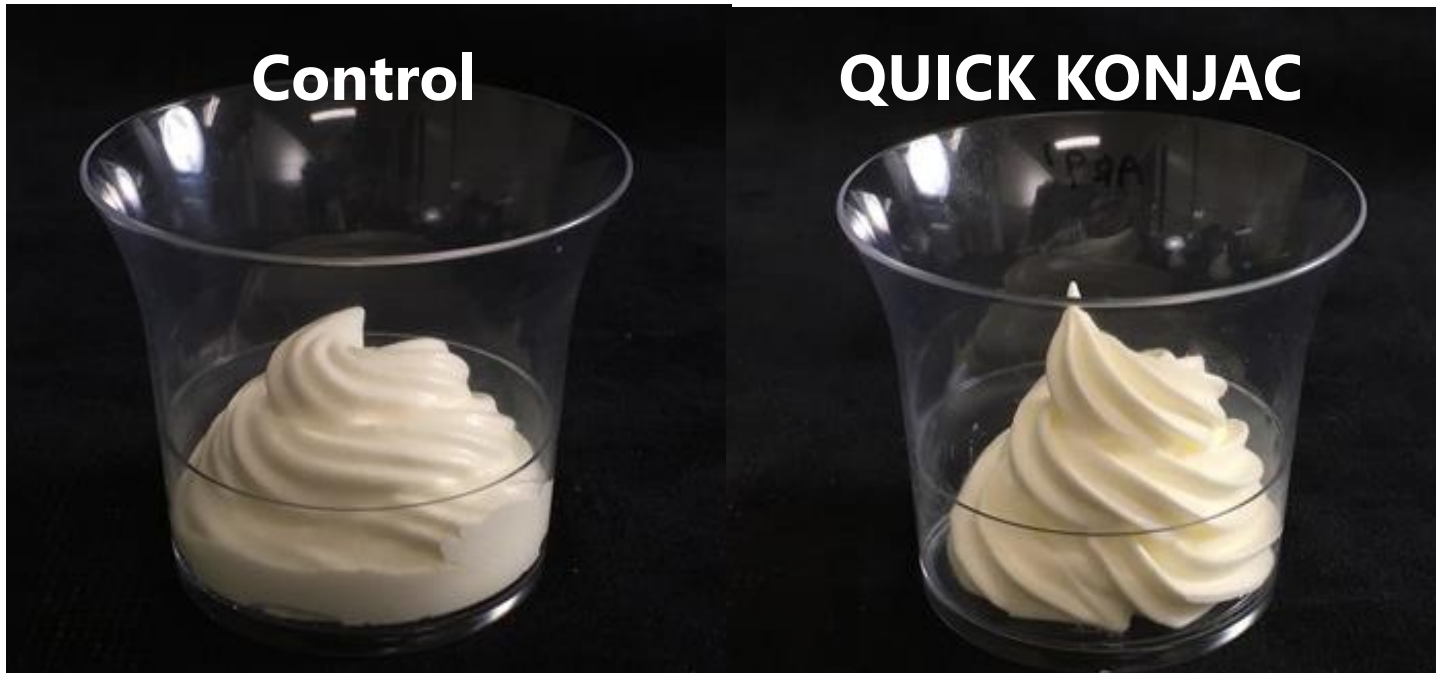
QUICK MANNAN work as a stabilizer



Dosage of QUICK MANNAN **0.5%**

Whipped cream

QUICK MANNAN works as a stabilizer



Dosage of QUICK KONJAC TR **0.5%**

Thank you very much

for your continuous support
to IWASE COSFA

Contact us

Iwase Cosfa Europe S.A.S(Paris)

Address: 105 Rue Anatole France,92300 Levallois-Perret

Phone:+33(0) 1 73 44 67 45

Fax:+33(0) 1 73 44 67 01

E-mail: ice.cs@iwasecosfa.com