



How to Disperse and Solubilize Carrageenan

Generally, carrageenan should be dispersed in cold water, and then heated above its solubility temperature to obtain optimum functionality. The solubility temperature will depend on the level of potassium and calcium ions associated with the carrageenan or the amount of salt present in the water. Both kappa and iota carrageenans typically require heating to 77° - 79°C (170 - 175°F) for complete solubility. Higher activation temperatures may be necessary should solids or cations be present in high concentrations.

For easy dispersion and to avoid lumping, use any of the following recommendations:

- Premix the carrageenan with a dispersant, such as sugar. Use a minimum of 3 parts by weight of the sugar before dispersing into cold water or milk. The carrageenan can also be blended with the dry ingredients in the formulation to avoid lumping,

OR

- Disperse carrageenan in liquid sugar, salt or glycerine (if present in the formulation). These ingredients retard the hydration of carrageenan which makes it easier to disperse and dissolve.
- Add the carrageenan powder slowly to the vortex of rapidly agitating fluid.
- Agitate vigorously with a high speed mixer.
- Heat carrageenan to 82°C (180°F) to solubilise, unless the carrageenan is designated to be cold soluble or swelling.

Cold soluble carrageenans may be dispersed into cold water by adding the carrageenan powder slowly with agitation. Premixing with sugar is recommended.

How to Mix Carrageenan



DO add the stabilizer slowly to rapidly agitated water



DON'T allow to lump by trying to dissolve the stabilizer too fast