

Instathix® – FACT SHEET

Instathix® is a concentrated natural powder blend of emulsifiers, stabilisers and texture modifiers to make Oil-in-Gel Emulsions with a small oil droplet size. It is used to make silky smooth serum textures, as well as richer, thicker creams and body butters. Formulations are quick to design, fast to make and are reliably stable under all conditions. This ingredient can also be used as a problem solver to increase viscosity or improve stability and texture. The versatility and low use level makes this ingredient economical and easy for every formulator.



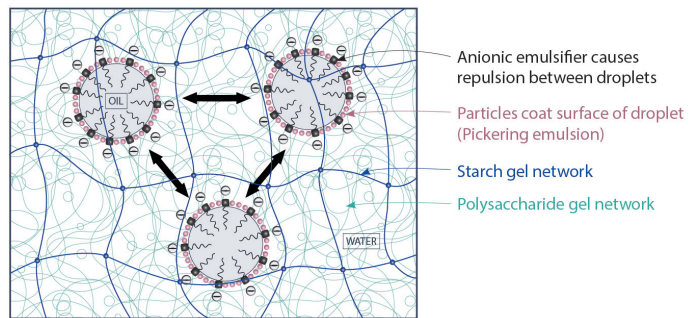
TECHNICAL INFORMATION

INCI	Xanthan Gum, Sodium Stearoyl Lactylate, Tapioca Starch, Algin
Origin	100% Vegetable, Vegan, non GMO, Globally Compliant, Sustainably Sourced, Biodegradable
Certification	COSMOS Approved, ISO 16128 100% Naturally derived, RSPO MB
Appearance	White Powder

RECOMMENDED USE LEVEL

- As the sole oil-in-gel emulsifier / thickener: 2-4%
- As an additive: 1-3%

INTERNAL STRUCTURE OF INSTATHIX® OIL-IN-GEL



FORMULATING DETAILS

How to use Disperse the powder in the oil phase at room temperature. Heat the water phase separately to over 70°C and add to the oil phase. Ensure the temperature of this mixture stays above 70°C for at least 5 minutes using a water bath or hot plate. Homogenise the mixture for several minutes until a smooth cream forms using a Silverson homogeniser or similar mixer. Transfer onto an overhead stirrer and stir while cooling down to 40°C. Add heat sensitive ingredients and stir well.

Tips All types of oils and esters are compatible. Keep the formulation between pH 5 and 10. Compatible with salt up to 3% and alcohol up to 20%.

Texture Type	% Instathix®	% Oil/Butter	Other Ingredients
Light Oil-in-Gel Serum	1.5 - 2.5	2 - 5	None required
Light Moisturiser	3 - 4	7 - 15	None required
Rich Cream	3 - 4	10 - 25	2 - 5% Glyceryl Stearate
Body Butter / Face Mask	3 - 4	15 - 30	3 - 7% Glyceryl Stearate/Fatty Alcohol at higher oil levels

APPLICATIONS



Serums



Gel-creams



Moisturisers



Body Lotions

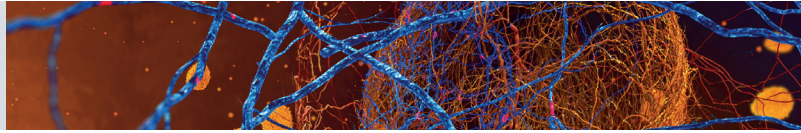


Hand Cream



Body Butter

Instathix®



VISCOSITY & RHEOLOGY

Figure 1: Graph of viscosity with Instathix® level

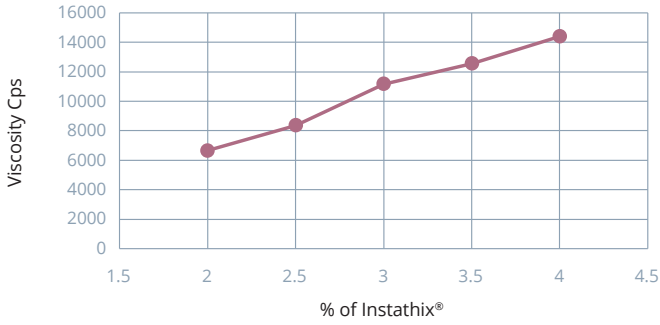
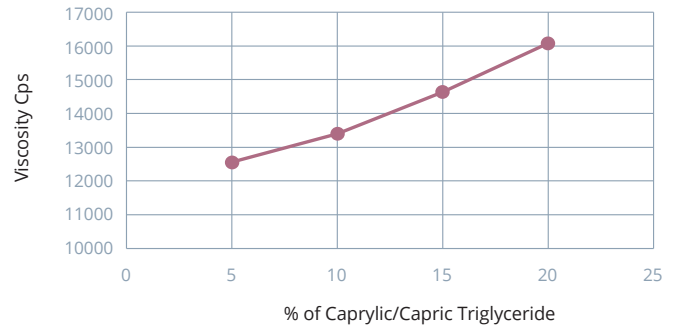


Figure 2: Graph of Viscosity against oil level



Instathix® creams have a rigid and structured appearance but easily shear when a stress is applied. This means creams appear rich and do not flow but can be dispensed easily through a pump.

Figure 1: Complex Modulus (Pa) (Measure of rigidity) v Oscillation Stress (Pa)

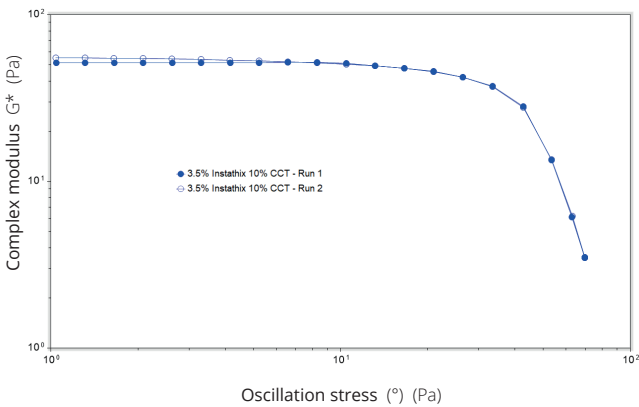
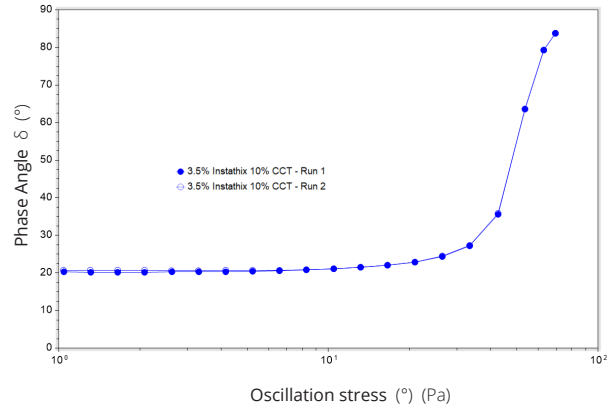


Figure 2: Phase Angle δ (°) (Measure of elasticity) v Oscillation Stress (Pa)



USE OF INSTATHIX® AS A STABILITY ENHANCER

Instathix® can be added to an unstable formulation at approximately 1-2% to stabilise and increase viscosity.

