

GUM ACACIA — & ENCAPSULATION

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Acacia gum is a natural ingredient used in the food industry to encapsulate liposoluble substances, essential oils, vitamins, flavors and colourings. Acacia gum offers unique properties that improve functionalities and increase stability.

Alland & Robert reference **INSTANT SOLUBLE GUM ACACIA 338I** is dedicated to the encapsulation of flavors, oleoresins or colors under powder form. It is particularly effective for essential oils, sensitive and volatile compounds, and is convenient for the stabilization of oil in water emulsions before a spray drying operation.

PRODUCTS BENEFITS

- 100% all natural, all vegetal and GMO free product, with constant traceability.
- 100% acacia gum, no additives added.
- A formulation that maximizes the film-forming abilities and increases oil loads.
- A better protection and exceptional retention of flavors.
- Protection from external factors like moisture and cross contamination.
- Make it easy to turn liquids and other ingredients into easy-to-dose powders.
- An economic and cost saving product that decreases the ratio gum/oil while maintaining the same efficiency than other gums.

ALLAND & ROBERT SERVICES

- A strong expertise on acacia gum thanks to a dedicated R&D team, research programs and exclusive partnerships with globally recognized universities.
- Production and laboratory that reach the highest quality standards through international certifications.
- A commitment to develop the quality of products through sustainable development, social investment and environmental awareness.
- Solid partnerships with an extensive network of African suppliers to ensure security of supply.

ALLAND & ROBERT

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GUM ACACIA ———

ENCAPSULATION

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COMPOSITION

Gum ACACIA 338i	20 % D.M. w/w
Water	59.3 % w/w
Citric acid	0.5 % w/w
Sodium benzoate	0.2 % w/w

Oil phase (colourings and/or flavours) | 20 % w/w

MANUFACTURING PARAMETERS

Blend 1 + 2	High speed mixer (i.e. Ultra Turrax for 4 min.)
High-pressure homogenisation	NIRO SOAVI NS1001L 2 stages (400 Bars + 50 Bars)

MANUFACTURING PROCESSES

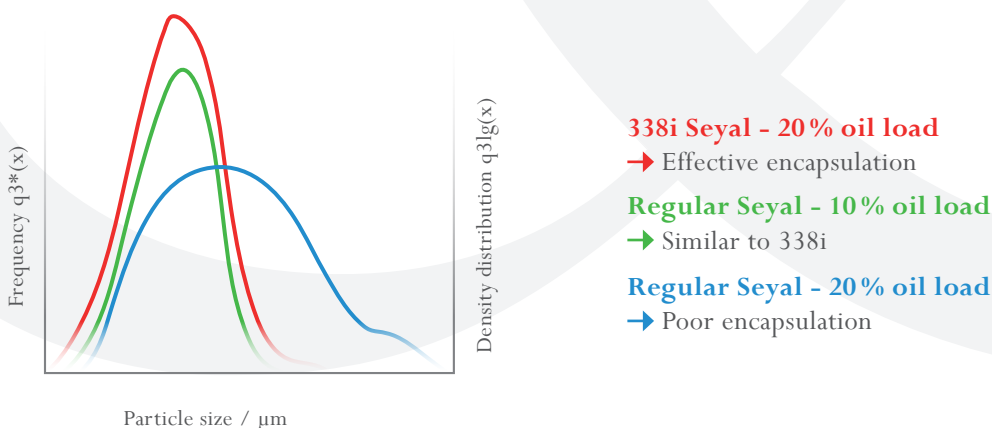
Disperse the gum acacia in the aqueous phase under stirring and wait for at least 3 hours for the complete hydration of the gum.

Add the blend made with essential oil(s) **under stirring** (with a high shear mixer, a Silverson for example). This premix phase is very important. Homogenise the preparation with the high pressure homogenizer.

Spray dry the emulsion in the next upcoming hours in a spray drying tower.

PROPERTIES

Comparison of oil in water emulsion: 338i vs Regular Seyal



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