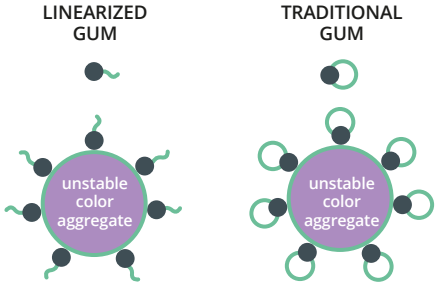
GUM ARABIC

Gum Arabic has long been used in winemaking for its ability to prevent clouding and the formation of precipitates caused by metals and unstable color. In recent years, there have been advances in understanding the mechanisms of action of gums and in the development of production processes, which make it possible to obtain products that are more effective and suitable for cellar application.

LINEARIZED VEREK GUM AND EFFECTS ON FILTERABILITY

Due to an innovative filtration process which modifies the molecular structure from globular to linear, Enartis can now produce a verek gum Arabic that keeps its **stabilizing efficacy**. It is microfilterable and **stabilizes the filterability index** of wine.

MODE OF ACTION
of linearized gum
vs. traditional gum:



The color aggregate stabilized by linearized Verek Gum Arabic has a smaller total volume and is therefore more filterable.

	FI* AT THE START OF TEST	FI* AFTER 1 MONTH
Red wine filtered with a tangential filter	3	124
Red wine filtered with tangential filter + 200 mL/hL Maxigum F	4.5	12

*Filterability index (FI) calculated by filtering wine with a 0.65 µm membrane. **FI = {(T3 - T1) - 2 (T2 - T1)}**
T1 = seconds required to filter 200 mL
T2 = seconds required to filter 400 mL
T3 = seconds required to filter 600 mL
Wine is considered filterable when **FI ≤ 14**.

GUM ARABIC

The use of gum Arabic in winemaking is to prevent the occurrence of turbidity and the formation of precipitates in the bottle.
Its stabilizing ability is due to the molecular structure consisting of a hydrophilic polysaccharide part and a hydrophobic part of a protein nature. By chemical affinity, the protein fraction binds to the unstable matter of wine, hydrophobic aggregates consisting of coloring substance, ferric phosphate or tartrate. The polysaccharide part, on the other hand, creates a hydrophilic layer around these aggregates which increases their solubility.
By virtue of its double hydrophobic-hydrophilic nature, gum Arabic also interacts with other substances in wine such as aromatic compounds, polyphenols and CO_2 produced during second fermentation. From this derives its effect on the organoleptic quality of wine which generally manifests itself with an increase in aromatic persistence and the reduction of astringency.
In practice, the effectiveness of gum depends on its characteristics and on changes in the molecular structure induced by the production process.

THE ENARTIS GUM ARABIC RANGE

Over 40 years of experience in the production of gum Arabic and studies conducted with significant research centers allow Enartis to offer a wide range of gum Arabic created to meet specific needs without losing sight of the ease-of-use.

	SEYAL GUM	VEREK GUM
Protein Content	almost 1.5%	almost 3%
Rotation	from +40° to +50°	from -26° to -34°
Filterability	♦♦♦	♦
Color Stabilization	♦	♦♦♦♦♦
Chelation of Metals	♦♦♦	♦♦
Tartrate Stabilization	♦♦	♦
Perlage Improvement	♦♦	♦♦♦♦

Main species-specific characteristics of gum Arabic. Scale from 1 (minor) to 5 (major).

GUM ARABIC

ENARTIS VEREK GUM

Differences in the production process determine the different filterability and organoleptic impacts, but they are all equally highly efficient in color stabilization.

MAXIGUM	MAXIGUM F	MAXIGUM PLUS
TRADITIONAL STABILIZATION	**FILTERABLE**	**FILTERABLE AND IMPACTFUL**
• Verek gum in solution	• Verek gum in solution	• Verek gum and mannoproteins in solution
• Excellent color stabilization	• Excellent color stabilization	• Excellent color stabilization
• Excellent effect on *perlage* quality	• Good effect on *perlage* quality	• Excellent effect on *perlage* quality
	• Recommended for addition before microfiltration	• Excellent organoleptic balance
	• Stabilization of the filterability index of wine	• Recommended for addition before microfiltration
		• Stabilization of the filterability index of wine

FILTERABILITY

ENARTIS SEYAL GUM

Seyal gum Arabic are subjected to a special purification and hydrolysis process that allows Enartis to obtain unique products for organoleptic quality, filterability and effectiveness.

CITROGUM	CITROGUM DRY	CITROGUM PLUS
CLEAR AND MICROFILTERABLE	**MICRO-GRANULATED**	**MICROFILTERABLE AND IMPACTFUL**
• Seyal gum in solution	• Micro-granulated seyal gum	• Seyal gum and mannoproteins in solution
• Clear and colorless	• Excellent solubility	• Excellent tartrate stabilization
• Excellent tartrate stabilization	• Low SO_2 content	• Excellent effect on *perlage* quality
• Good effect on *perlage* quality	• Excellent tartrate stabilization	• Enhances the perception of sweetness
• Microfilterable	• Good effect on *perlage* quality	• Microfilterable
	• Microfilterable	

AROMAGUM: STABILITY AND AROMATIC CLEANSING

Aromagum, the result of research conducted with the University of Milan, reduces the volatility of compounds responsible for oxidized, vegetal and animal notes in favor of the perception of cleaner and more pleasant aromas. Furthermore, it slows the aromatic ageing of wine and preserves its fruity character even in less-than-optimal storage conditions.

enartis

Inspiring innovation.

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