

ALL THE
NUANCES
OF

ARABIC

GUM

FIND IN THE
ARABINOL® LINE
WHAT YOU WANT
FOR YOUR WINES



 **AEB**®



ARABIC GUM

WHAT IS IT?

Gum arabic is a **sap** that is harvested from numerous *Acacia* species and then selected by hand. Two varieties are used in oenology: **Acacia Senegal** and **Acacia Seyal**, which come from the Sahel desert region of Africa. More precisely, gum arabic is a hydrophilic colloid consisting of a **mixture of oligosaccharides, arabinogalactans and glycoproteins**. Gum arabic is predominantly composed of **carbohydrates**, particularly **D-galactose** and **L-arabinose** (approximately 97%), and glycoproteins.



AEB gum arabic is naturally free of genetically modified organisms.

HOW DOES IT ACT?

In wine, gum arabic basically plays the role of a **protective colloid** and has several benefits:

- ✔ increases **the stability of the colouring matter** in red wines;
- ✔ increases the effectiveness of specific treatments (e.g. CREMOR Stop Extra 40 and NEW-CEL) to **counteract the formation of bitartrate crystals**;
- ✔ gives **greater softness**;
- ✔ promotes **perlage quality**;
- ✔ helps maintain **aromatic intensity and complexity**;
- ✔ **protects** against precipitation due to **ferric or cupric casse**;
- ✔ improves **protein stability**.

THE IMPORTANCE OF ROTATING POWER

The rotational power depends on the variety of acacia from which the gum is extracted.

Depending on the type, Seyal or Senegal, gum Arabic has **different characteristics and properties**, and different ratios of sugars, which form the polysaccharide and glycoprotein chains.

PROPERTIES	ACACIA SEYAL (+)	ACACIA SENEGAL (-)
Rotational power	Dextrorotatory	Levorotatory
Viscosity	●	●●●●
Arabinose/galactose ratio	> 1	< 1
Amount of rhamnose	●●	●●●●
Acid content	●	●●●●
Precipitation protection	●●●●	●●●
Colour protection	●●	●●●●
Organoleptic influence	●●	●●●●
Wine filterability	●●●●	●●

● Low
 ●● Medium
 ●●● Medium-high
 ●●●● High





THE AEB PROCESS

FOR THE PRODUCTION OF GUM ARABIC

Thanks to the expertise gained over the years, AEB has developed a **wide range of arabic gum**, which differ in several chemical and physical parameters. **AEB's manufacturing process** consists of a series of fundamental steps that guarantee the quality and consistency of the product over time.

The production starts with the natural boil, which is reduced to a powder, dissolved in water and clarified according to the characteristics of the semi-finished product.

Then, depending on the case, it can be filtered directly or after the clarification process. Subsequently, the product is stabilised against metals (calcium in particular) and cold concentrated by means of a special plant developed by AEB for this purpose.



The process adopted by AEB for the production of gum arabic.



ARABIC GUM AEB


RAW MATERIALS


DEXTROROTATORY GUM

LEVOROTATORY GUM

MANNOPROTEINS

PRODUCTS

ARABINOL
ARABINOL 30
ARABINOL HC
ARABINOL Hi-Flow
ARABINOL BIO D 
ARABINOL Dolce

ARABINOL BIO L 
ARABINOL Super Rouge
ARABINOL Multistant

ARABINOL Staby+

ARABINOL Arôme

SOUPPLANE

LIQUID



ARABINOL Hi-Flow

DEXTROROTATORY

20-160 g/hL

Contributes to tartaric stability and is highly filterable

The combined addition of metatartaric acid increases the anti-cream effect of the treatment

Strengthens the copper and ferric anti-caustic action

Appearance	Straw-yellow, slightly viscous liquid
DO 420nm	≤ 0.2
Turbidity (NTU)	≤ 20
SO ₂ %	0.30 - 0.50
RS %	18 - 20
pH	2.6 - 3

ARABINOL

DEXTROROTATORY

20-140 mL/hL

Participates in tartaric stability

Inhibits copper, ferric and protein casse

Gives gustatory roundness and volume

Ensures a more persistent perlage

Stabilises the colouring substance

Appearance	Clear yellowish liquid
DO 420nm	≤ 0.2
Turbidity (NTU)	≤ 20
SO ₂ %	0.30 - 0.50
RS %	20 - 21
pH	4.2 - 4.8

All AEB arabic gums impart softness and stability to

ARABINOL 30

DEXTROROTATORY	
20-100 g/hL	
30% gum arabic solution	
Gives high taste roundness and volume	
Participates in tartaric stability and protects the wine from undesirable precipitation, especially of the colouring matter	
Inhibits copper, ferric and protein casse	
Appearance	Straw-yellow, slightly viscous liquid
DO 420nm	≤ 0.4
Turbidity (NTU)	≤ 25
SO ₂ %	0.30 - 0.50
RS %	30 - 31
pH	3.2 - 3.8

ARABINOL HC

DEXTROROTATORY	
20-85 g/hL	
Over 33.5% gum arabic solution	
Provides high volume thanks to the characteristics of the raw material	
Participates in tartaric stability and protects the wine from unwanted precipitation, especially of the colouring matter	
Inhibits copper, ferric and protein casse	
Appearance	Straw-yellow, slightly viscous liquid
DO 420nm	≤ 0.4
Turbidity (NTU)	≤ 30
SO ₂ %	0.30 - 0.50
RS %	33.5 - 34.5
pH	3.2 - 3.8

ARABINOL Staby+

LEVOROTATORY and DEXTROROTATORY	
20-150 g/hL	
Helps stabilise colour	
Has a stabilising action against tartaric precipitation due to demineralisation by cation exchange treatment	
Possesses medium filterability for minimum pre-filtration waiting time	
It is ideal for red and rosé wines	
Appearance	Straw-yellow, slightly viscous liquid
DO 420nm	≤ 0.2
Turbidity (NTU)	≤ 30
SO ₂ %	0.30 - 0.50
RS %	20 - 21
pH	3.5 - 4

ARABINOL Super Rouge

LEVOROTATORY	
20-135 g/hL	
Greatly contributes to colour stabilisation	
Gives roundness of flavour	
Is ideal for red wines, both young and with high tannic and anthocyanic content	
Appearance	Straw-yellow, slightly viscous liquid
DO 420nm	≤ 0.2
Turbidity (NTU)	≤ 30
SO ₂ %	0.30 - 0.50
RS %	21 - 22
pH	4.2 - 4.8

ARABINOL Arôme

DEXTROROTATORY and LEVOROTATORY	
50-180 g/hL	
Protects and preserves the aromatic component	
Has a high colloidal power and good softening power	
Softens acid sensations	
Preserves the most unstable colour fraction, making it ideal for treating young red wines	
Appearance	Straw-yellow, slightly viscous liquid
DO 420nm	≤ 0.2
Turbidity (NTU)	≤ 30
SO ₂ %	0.50 - 0.60
RS %	15 - 16
pH	2.7 - 3

SOUPLANE

LEVOROTATORY and MANNOPROTEINS	
50-500 mL/hL	
Decreases perception of bitterness and gives roundness	
Stabilises colour and protects against protein and metal cases	
Can improve tartaric stabilisation	
Is ideal for red and rosé wines	
Appearance	Light yellow liquid
DO 420nm	< 0.4
Turbidity (NTU)	≤ 100
SO ₂ %	0.35 - 0.58
RS %	22 - 24
pH	3.3 - 3.9

wines in varying proportions.



ARABINOL Dolce

ARABINOL Dolce is the alternative to adding sugar to wines. It is produced using a new processing method that positively influences the organoleptic quality of wines by contributing to **increased sensations of richness, sweetness and body.**

DEXTROROTATORY

20-150 g/hL

Aids colloidal stabilisation

It is **ideal in wines where sweet taste sensations are to be amplified**, reducing the need for residual sugars



In red wines it harmonises the astringent and angular notes of large tannic structures



In white wines it enhances retro-olfactory sensations by increasing the duration of perception of the wines



In young liqueur wines it reduces the impact of alcohol and alleviates its aggressive sensation

Appearance	Clear yellow liquid
DO 420nm	≤ 0.4
Turbidity (NTU)	≤ 30
SO ₂ %	0.25 - 0.35
RS %	18 - 20
pH	4 - 4.5

POWDERED



CERTIFIED ORGANIC GUM ARABIC



ARABINOL BIO D

DEXTROROTATORY

10-30 g/hL

Instantly soluble microgranulate

Gives roundness of flavour

Is totally free of SO₂

Protects the colouring substance of red wines by keeping it stable over time, without affecting filterability

Prevents the formation of cupric, ferric and protein colloids

The combined addition of metatartaric acid increases the anti-cremor effect of the treatment

Appearance	Beige granular powder
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SO ₂ %	ABSENT
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Ceneri %	< 4
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Peso specifico	0.8 - 0.9
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ARABINOL BIO L

LEVOROTATORY

10-30 g/hL

Instantly soluble microgranulate

Gives high taste roundness

Is totally free of SO₂

Performs a strong protective action on the colouring substance of red wines, keeping it stable over time

Prevents the formation of cupric, ferric and protein colloids

The combined addition of metatartaric acid increases the anti-cremor effect of the treatment

Appearance	Ivory granular powder
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SO ₂ %	ABSENT
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Ceneri %	< 4
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Peso specifico	0.8 - 0.9
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ARABINOL Multistant

LEVOROTATORY

10-30 g/hL

Instantly soluble microgranulate

Gives high taste roundness

Is totally free of SO₂

Performs a strong protective action on the colouring substance of red wines, keeping it stable over time

Prevents the formation of cupric, ferric and protein colloids

The combined addition of metatartaric acid increases the anti-cremor effect of the treatment

Appearance	Yellow granular powder
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SO ₂ %	ABSENT
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Ceneri %	< 4
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Peso specifico	0.35 - 0.55
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AEB ARABIC GUM COMPARATIVE TABLE

	Protection from precipitation	Protection from colour	Organoleptic influence	Wine filterability
ARABINOL Hi-Flow	●●●	●	●●	●●●
ARABINOL	●●●	●	●●	●●
ARABINOL 30	●●●	●●	●●	●●
ARABINOL HC	●●●	●	●●●	●●
ARABINOL Super Rouge	●●	●●●●	●●	●
ARABINOL Arôme	●●	●●	●●●●	●
ARABINOL Staby+	●●	●●●	●●●	●●
ARABINOL Multistant	●●	●●	●●●	●
ARABINOL BIO L	●●	●●●	●●●	●
ARABINOL BIO D	●●●	●●	●●	●●
SOUPLANE	●●	●●	●●●●	●●
ARABINOL Dolce	●●	●●●	●●●●	●●●

- Low
- Medium
- Medium-high
- High

ARABINOL®
is a registered trademark of AEB.



THE TECHNOLOGICAL QUALITY PARAMETERS OF GUM ARABIC

PURITY

The selection phase is of particular importance as it determines product purity and a less invasive technological process. Indicators of purity include: heavy metals, foreign materials, tannic and/or colouring substances, preservatives, phytochemicals, mycotoxins. The clarification and finishing stage will stabilise the product in terms of quality consistency.

DRY EXTRACT

This is expressed as a percentage (%) in addition to the percentage of moisture and varies according to the type of use and technology adopted for rubber production. For the correct calculation of this parameter, it is particularly important to verify the methodology adopted, which consists of correct drying without hydrolysis of the polysaccharides. **If of good quality, the exiccate should retain a light colour.**

COLOUR

Dependent on the initial purity, the quality of the bushings, the quality of clarification and finishing; expressed in optical density at 420 nm.

TURBIDITY

It is partly determined by the initial purity and the quality of the flasks, but the quality of the clarification and subsequent filtration (expressed in NTU) has a great influence on this parameter.

pH

Its value depends on the product-specific production process. In general, pH influences the size of the molecule and thus the perception of the product in the wine, and has an impact on the filterability of the product. AEB's arabic gum has a pH range of between 2.6 and 4.8.

SULPHITES

They act as antiseptics in liquid products and control unwanted microorganisms.

TECHNOLOGICAL APTITUDE

Relates to filterability and viscosity. It is determined by the origin, purity and quality of the preparation processes. **Filterability is determined as the filtering power of a wine added with 2 g/L gum arabic in solution on a 0.45µm filter membrane, compared with wine as is.**

MICROBIOLOGICAL STABILITY

This depends on the quality of the preparation processes and can be measured using classical methods. In addition to pathogens, the profile of microorganisms of technological interest, such as mycetes, yeasts and bacteria, is of particular importance. A non-perfectly stable gum can lead to sensory or technological alterations.

QUALITATIVE CONSTANCY

This is a fundamental parameter of gum arabic, especially considering its vast production area and seasonality. AEB exercises strict controls throughout the entire product life cycle: from the selection of incoming raw materials to the analysis that guarantees the consistency of each batch and product over time.

SAFE AND SUSTAINABLE RAW MATERIAL HARVESTING

AEB gum arabic is sourced from suppliers who comply with programmes aimed at the protection of different Acacia tree species and the preservation of rubber trees. Harvesting is also aimed at better organisation of the sector, social promotion of local populations and improving the income of producers.

DISCOVER
ALL AEB
ARABIC
GUMS

