



## Bronze Leaf Gelatin - Ultra-Pure Leaf Gelatin

### Product Data Sheet

## Specifications

Leaves/kg:	+/- 300	Cd:	≤ 0.5 ppm
Bloom:	150 +/- 15	Hg:	≤ 0.15 ppm
Clarity:	≤ 50 NTU	Cr:	≤ 10 ppm
pH:	4.9 – 5.6	Cu:	≤ 30 ppm
SO <sub>2</sub> :	≤ 50 ppm	Zn:	≤ 50 ppm
H <sub>2</sub> O <sub>2</sub> :	≤ 10 ppm	<b>Total aerobic bacteria:</b>	≤ 1000/g
Moisture:	<15%	<b>E.-Coli:</b>	0/10g
Ash:	< 2%	<b>Salmonella:</b>	0/25g
As:	≤ 1 ppm	<b>Anaerobic sulphite-reducing bacteria (no gas production):</b> ≤ 10/g	
Pb:	≤ 5 ppm		

## Use

**Source:** Bronze Leaf gelatin is produced from 100% pig skins.

**Characteristics:** Gelatin is one of a number of positively charged, proteinaceous fining agents. The processing of gelatin is hardly an exact science, so they vary from batch to batch, even from the same company. One advantage of leaf gelatin is its consistency. It has no bloom number because it is not granular.

**Legalities:** GRAS (Generally recognized as safe)

No restrictions on addition.

**Common Use:** Gelatin is a major wine industry fining agent for clarification and/or reduction of tannin. Often the only fining agent used in a red wine, it is also beneficial for white wines. Most whites that do not clear with bentonite will clarify with gelatin. Kieslesol (Nalco 1072) is used to precipitate gelatin in whites rather than adding tannin.

Gelatin is positively charged, reacting with tannin, which has a negative charge, whether naturally occurring or added. It also precipitates some wine pigments, especially in red wines.

**Dose:** Clarification – 1/8 to 1/2 lb/1000G (0.015-0.06 g/L)

Tannin reduction whites – 1/8 to 1/2 lb/1000G (0.015-0.06 g/L)

Tannin reduction reds – 1/2 to 1 lb/1000G (0.06-0.12 g/L)

**Preparation:** To prepare a gelatin solution, stir gelatin into hot (not boiling) water to make a 1% or 2% solution (not more than 4%). Boiling will denature gelatin. Do not use hot wine instead of water, or an oxidized flavor will result, and wine inactivates the gelatin. The solution must be used when warm and will solidify when cool, but may be reheated gently if it gels during fining. Keep the solution frozen or it will mold.

The solution is added very slowly to the wine, drop-by-drop, while stirring constantly. Gelatin reacts instantaneously upon contact, so there is no second chance to get it dispersed. Clumping can be avoided by proper mixing during the fining, but the moment that gelatin touches the wine is the most important one. Gelatin lees should settle for 1-2 weeks before racking. The lees settle poorly below around 55oF.

Kieselsol has replaced tannin as the material to add to precipitate gelatin in white wine. Unless kieselsol is added either before or after gelatin, the gelatin will stay in solution in white wine, making it cloudier than before fining. Red wines have sufficient tannin that kieselsol addition is superfluous.

**Lab trials:** A 1-2% solution is prepared to perform trials. The same gelatin must be used in the lab as in the cellar, since gelatins are quite variable. See "Lab Trials of Cellar Additions" for calculations of amounts.

Be sure to add kieselsol to white wines. Some wineries use 1/2 mL/G kieselsol if less than 1/2 lb/1000G gelatin is used, and 1 mL/G if 1/2 - 1 lb/1000G is added. Large gelatin additions (such as in juice) or wines in which the gelatin is settling poorly, need even more kieselsol for proper settling. The manufacturer suggests a higher dose (see kieselsol section)



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