

This protocol represents a summary of best global practices for carbonic maceration. Please contact your ATPGroup Enology Products Specialist for assistance adapting this protocol to your specific requirements.

## Harvest:

For optimal results, the grapes should be harvested before full ripeness, when they reach 20–22°Brix with an acidity of 6.5 g/L. **AromaGuard** can be added directly to the fruit to prevent oxidation and enhance the aromatic characteristics of the varietal.

## Production:

1. Put a screen in the tank to separate the liquid from the whole clusters. This will prevent the wine from getting off-aromas.
2. The temperature in the tank should be approximately 59°F.
3. Create a starter layer of fermenting must with yeast and add it to the bottom of the tank before filling the tank with the whole clusters.
4. Add the whole clusters on top. This must be done gently to avoid breaking the skins and to eliminate broken or spoiled grapes. Close the tank when full, leaving a vent for excess CO<sub>2</sub>. Saturate the tank with CO<sub>2</sub> and check the temperature, ensuring it is not higher than 68°F.
4. Seal the tank and maintain a temperature of approximately 73°F for the grapes and 65–68°F (if possible) for the fermenting layer to obtain optimal varietal flavor.
5. Keep in tank for a minimum of 1–2 weeks. The fermenting layer typically finishes fermenting within 4–7 days. For an extended carbonic maceration, add CO<sub>2</sub> gas when the fermentation is slowing to compensate for escaping CO<sub>2</sub>.

## Preparation of Fermentation Layer:

- If you have tanks already in fermentation with 4%–6% alcohol, use that must, adding tartaric acid to lower the pH as close as possible to 3.0.
- If you do not have must already in fermentation, crush a quantity of grapes equal to 5% of the mass to be treated. (For example, crush 100 lbs per 1 ton of grapes.) The pH should be as close as possible to 3.0; if needed, add tartaric and malic acids to lower it. If the pH is less than 3.4, reduce the dose of SO<sub>2</sub> by 50%; if it is above 3.4, use the normal dose of SO<sub>2</sub>. Prepare the yeast for the inoculation, using 25 g/hL of selected yeast with nutrient.

## Racking and Fermentation:

Rack directly to the press, and ferment at a temperature of 59°F using typical white fermentation protocols. Add 100 g/hL of tartaric acid and 60 g/hL of malic acid to the must, then add the yeast in fermentation and nutrient. Allow it to ferment at 59°F with overpressure. At the end of fermentation, lower the temperature to 43°F and decant, maintaining the temperature at 43°F.

## Note:

The TTB limits acid adjustments to a final maximum adjusted concentration of 9 g/L (0.9 g/100 mL) titratable acidity (as tartaric acid equivalents) in most cases. See 27 C.F.R. 24.182.