

Organoleptic Evaluation	Olivar Santamaria	Range	Explanation
Extra Virgin			After a series of sensoral analytics and once experts' conditions are met a panel evaluates the olive oil and arrives at the quality designation. Designations range from "extra virgin", "virgin", "refined" and "pomace"
Md (Median of Defect)	0		Median of Defects (Md). A calculation of the median score from a panel of tasters or an equivalent scoring method that characterizes the negative flavor and odor attributes of virgin olive oil. The characterizations of flavors lists musty, fusty, winey-vinegary, muddy-sediment, and rancid.
Mf (Median of Fruity)	3.2	> 0	Median of Fruity (Mf). A calculation of the median score from a panel of tasters or an equivalent scoring method that characterizes "virgin" olive oil produced from olives. The characterizations of flavors lists olives, apple, green, sweet, grass, nutty and tomato.
Acidity (% of Oleic Acid)	0.17%	<0.80%	The higher the acidity the lower the quality. For EVOO the acidity must be less than 0.80%. Free fatty acidity is a direct measure of the quality of the oil and reflects the care taken right from picking the fruit to the eventual bottling/packaging and consequent sale of the oil.
Oleic Acid	8 0.30%	55.00 - 83.00%	It is a monounsaturated omega-9 fatty acid found in olive oil. Olive oil is generally higher in oleic acid than other vegetable fats.
Palmitic Acid	10.80%	7.5 - 20.0%	It is the most common fatty acid found in animals, plants and microorganisms.
Linoleic Acid	3.60%	3.50 - 21.00%	It is a fatty acid component found in olive oil. Its level is used to establish the purity of the olive oil.

Linolenic (%)	0.60%	0 - 0.90%	It is a polyunsaturated omega-3 fatty acid.
Peroxides (meg O <sub>2</sub> /kg)	5.39	< 20	A measure of the oxidation of olive oil expressed as milliequivalents of active oxygen per kilogram of oil.
UV Absorption K- 270	0.09	< 0.22	This test provides information on the quality of the oil, state of preservation, and changes brought about through processing. This is a more delicate indicator of oxidation, especially in oils that have been heated in the refining process. It measures the quantity of certain oxidized compounds that resonate at wavelengths of 232 and 270 nanometers (nm) in the ultraviolet spectrum in a spectrophotometer. Delta (Δ) K detects oil treatments with color removing substances and the presence of refined or pomace oil by measuring the difference between absorbance at 270 nm and 266 nm – 274 nm.
Wax	40	≤ 250	A determination used to identify the presence of pomace oil or seed oil. Wax content is higher in pomace oil because wax is found in the skin of the olive fruit. When the oil has a wax content between 300mg/kg and 350 mg/kg it is considered lampante virgin olive oil if the total aliphatic alcohol content is less than or equal to 350 mg/kg or the erythrodiol + uvaol content is less than or equal to 3.5 percent

Polyphenols (Antioxidants)	500+	100 - 500+	Polyphenols are substances that are found in many plants and provide some flowers, fruits, and vegetables their color. Polyphenols have antioxidant activity that protect cells from the damage caused by free radicals (unstable molecules made by the process of oxidation during normal metabolism). Free radicals may play a part in cancer, heart disease, stroke, and other diseases of aging. Antioxidants include beta- carotene, lycopene, vitamins A, C, and E, and other natural and manufactured substances.
Smoke Point	405°F	200°F - 405°F	The smoke point is the temperature at which the oil is decomposed and where possibly toxicological relevant compounds are formed and the temperature at which visible gaseous vapor from the heating of oil becomes evident. It is traditionally used by chefs as a marker for when decomposition of the oil begins to take place which may not only result in reduced flavor and nutritional value but also may generation harmful cancer causing compounds (oxygen radicals) that are harmful to the health.