

# Greek Yogurt

By Ultra-Filtration or Separation recipe

Type of technology	Ultra-Filtration or Separation
Source of milk	High quality milk is used
Culture	Table 1 and 2
Enzyme	-
Description	<p>‘Greek’ yogurt is a version of concentrated yogurt, usually designed to contain higher level of protein than regular yogurt. Traditional Greek yoghurt is full fat and has medium to strong yoghurt flavor. Typically it will contain 8% of protein in the final protein. It can be produced either by separation (after fermentation) or Fortification (before fermentation). Choice of DVS culture depends on the desired final product characteristics and national regulations.</p>

Table 1: Frozen DVS® culture recommendations

Flavor and Acidity	Texture Profile	Culture name
Very mild yogurt flavor, low acidity	High texture, smooth	SoGreek S1
Very mild yogurt flavor, low-medium acidity	High texture, smooth	Mild 2.0
Very mild yogurt flavor, low-medium acidity	Medium texture, smooth	Mild 3.0
Mild yogurt flavor, low acidity	High texture, smooth	SoGreek S2 Premium 1.0 Premium 2.0
Mild yogurt flavor, medium acidity	Medium texture, smooth	YF-L702

Table 2: Freeze-dried DVS® culture recommendations

Flavor and Acidity	Texture Profile	Culture name
Very mild yogurt flavor, low acidity	High texture, smooth	Mild 1.0
Mild yogurt flavor, low acidity	High texture, smooth	YF-L812
Medium yogurt flavor, low to medium acidity	High texture, smooth	YF-L903 YC-X16



Milk	High quality skimmed milk is used for production. The milk is standardized to the desired fat and SNF level.
Hydration	If milk powders are used, hydration should be considered, e.g. 6-8° C (43-46°F) for 1-3 hours or as advised by the powder supplier. Optionally the standardized milk mixture can undergo deaeration at 350-400 mbar (5-6 psi).
Homogenization	Homogenization is normally carried out at 60-70°C (140-158°F) at a pressure of 100-150 bar (1450-2175 psi).
Heat treatment	The milk is heated through HTST to 90-95°C (194-203°F) for 3-5 min; vat pasteurization 85°C (185°F) for 30 min; milk is then cooled to incubation temperature, i.e. 36-44°C (97-111°F). Optionally the standardized milk mixture can undergo deaeration at 350-400 mbar (5-6 psi) to reduce the oxygen content. This might shorten the fermentation time.
Culture	For the production of Greek style yogurt, the cultures are mentioned in table 1 and 2 to achieve the desired texture and flavor in the final product.
Inoculation	The culture is taken out from the freezer just prior to use. The package is disinfected prior to opening. After opening the culture is poured into the milk. The mixture is agitated slowly for 10-15 minutes to distribute the culture evenly.
Fermentation	The DVS® culture is inoculated at 36-43° C (97-109°F) and left undisturbed until the pH is below 4.55-4.6.
Post treatment	When the desired pH is reached, the curd can be treated via Ultra-Filtration or separators at 36-43 °C (97-109° F) to concentrate the products to 18-22% total solids. Optionally, fruit preparation and/or flavor may be added to the yogurt by in-line mixing prior to packaging .
Storage	The product is filled in the desired cups and placed in a cold storage room at approximately 4-8°C (39-46°F).

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