LALLEMAND
DISTILLING

CHARACTERISTICS OF DISTILAMAX™

Temperature	Feedstock	DistilaMax	pH range	Ethanol content	Higher alcohols	Esters
20 °C 28°C	MALTED GRAIN	MW	3.8 – 5.3			
		NT	3.8 – 5.3			
		XP	3.8 – 5.3			
28 °C 34°C		MW	3.8 – 5.3			
		NT	3.8 – 5.3			
		XP	3.8 – 5.3			
34 °C 36°C		MW	3.8 – 5.3			
		NT	3.8 – 5.3			
		XP	3.8 – 5.3			
20°C - 34°C	GRAIN	GW	3.8 – 5.3			
20°C – 36°C		NT	3.8 – 5.3			
25°C - 33°C		MW	3.8 – 5.3			
28°C - 35°C		HT	3.8 – 5.8			
25°C – 38°C	CANE MOLASSES	CN	3.4 – 5.3			
25°C – 38°C		ML	3.6 – 5.3			
25°C – 36°C		SR	3.6 – 5.3			
25°C – 34°C	BEET MOLASSES	SR	3.6 – 5.3			
27 °C - 33 °C	SUGAR CANE JUICE	RM	3.3 – 5.3			
33 °C - 36 °C		RM	3.3 – 5.3			
27°C – 33°C		CN	3.4 – 5.3			
33°C – 38°C		CN	3.4 – 5.3			
27 °C - 33 °C		SR	3.6 – 5.3			
20°C -33°C	AGAVE	TQ	3.2 – 5.2			
20°C -33°C		LS	3.2 – 5.2			
36°C – 38°C		AG	3.8 – 5.2			
20°C – 33°C	FRUIT	LS	3.2 – 5.2			
20°C -33°C		TQ	3.2 – 5.2			

= Highest = Lowest

DistilaMax Characteristics Table - 250520

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CHARACTERISTICS OF DISTILAMAX™

Higher alcohols

Higher alcohols are alcohols with more than two carbon atoms.

Ethanol contains two carbons. They are formed in small amounts by the yeast metabolism during the alcoholic fermentation process.

Higher alcohols are produced through a sequence of reactions from sugars and amino acids.

The amount produced is dependent on the genus, species and strain of yeast, the specific nutrient makeup (nitrogen and amino acids) and sugar composition of the must or wort and the temperature, aeration and pH profiles during fermentation.

Higher alcohols can have an aromatic effect. Some can be considered positive whilst others can be considered negative to the spirits' aromatic profile.

Esters

Esters are key components of aromas. They are usually formed by the reaction between an acid and an alcohol with the elimination of water.

This is why it's important to develop some higher alcohols during the fermentation process.

As with higher alcohols, the production of esters is dependent on the yeast strain and fermentation conditions. The production of esters then continues during maturation in wooden barrels.

Esters make an important contribution to the aromatic profile of a spirit, even at very low concentrations.

Unlike higher alcohols, the aromatic threshold of esters is very low meaning concentrations of ppb are enough to impart spicy, fruity, flowery and other aromas to the distillate.

LALLEMAND BIOFUELS
& DISTILLED SPIRITS

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