

HOPSTEINER – NEWSLETTER

OCTOBER 2011

TECHNICAL SUPPORT




Hopsteiner®

COMMITTED TO THE BREWER.

Hopsteiner Hop Oils

The use of hop oils provides significant advantages with regard to achieving a consistent hop aroma in beer. There are three types of hop oils available: Type Dry, Type Noble and Type Noble Plus with the Type Dry product having the added benefit that it can be produced from specific hop varieties.

Our hop oils are produced by distillation and a subsequent fractionation by CO₂. Basically they can be distinguished by their concentrations of terpenes (like myrcene, humulene, caryophyllene etc.) and terpene alcohols (like linalool).

The composition of the main components in the three types of hop oils is as follows (EBC 7.12):

Type Dry	Myrcene: 55 – 75 %	(depending on variety)
	Humulene: 8 – 15 %	(depending on variety)
	Caryophyllene: 5 – 10 %	(depending on variety)

Type Noble	Linalool: 8 – 15 %	Specific ratios
		Linalool / Myrcene: > 0.5
		Linalool / Caryophyllene: > 4
		Linalool / Humulene: > 1
		Linalool / Farnesene: > 10

Type Noble Plus	Linalool: 15 – 25 %	Specific ratios
		Linalool / Myrcene: > 5
		Linalool / Caryophyllene: > 30
		Linalool / Humulene: > 15
		Linalool / Farnesene: > 25

Each hop oil provides a different flavour to the beer. Furthermore the dosed quantity also has a strong influence on the final aroma. Principally we can indicate the following:

Flavour				
Time of Addition	Quantity	Type Dry	Type Noble	Type Noble Plus (less spicy compared to Type Noble)
Brew Kettle / Whirlpool	3.0 – 5.0 g/hl	traditional hoppy character		
Prior to fermentation	0.5 – 2.0 g/hl	clean dry hopped flavour		
Post fermentation	0.05 – 0.2 g/hl	typical dry hoppy flavour, strong herbal notes		
Post fermentation	Up to 20 µg/l		mainly hoppy, a bit herbal	
	Up to 60 µg/l		mild hoppy, herbal and flowery	
	Up to 100 µg/l		hoppy, herbal and flowery	
Post fermentation	Up to 20 µg/l			mild hoppy character
	Up to 60 µg/l			hoppy and flowery
	Up to 100 µg/l			flowery, fruity and a bit citrusy

It must be emphasised that these indications can vary depending on the individual beer.

Therefore we recommend that the resulting flavour is first checked by adding various concentrations of the hop oils to the beer.

If you need any help, please contact our technical team anytime. We will be happy to support you.