



Totally Natural Solutions

**HopPlus®**



### **General**

HopPlus® is a flowable, natural extract prepared from hop cones or pellets by innovative extraction and distillation methods, skilfully blended with a natural flavour extracts to provide brewers with a consistent route to quality seasonal and speciality beers.

### **Characteristics**

HopPlus® provides an easy to use, reproducible method of adding flavour and aroma to speciality beer without the need to remove spent material and associated beer losses! An addition of HopPlus® gives an enhanced flavour and aroma with hop character maintained.

### **Light stable**

All products are free of iso and alpha acids and can be used with any beer packaging type.

### **Fully soluble**

HopPlus® utilisation up to 100% if dosed direct to bright beer.

### **Easy handling**

Flowable, soluble extract provided as a standardised solution for dosing into bright beer.

### **Natural, clean label**

100% extracts from hops and natural flavours.

### **Popular Products**

<b>Product Name</b>	<b>Character</b>	<b>Typical Dose Rate</b>	<b>Suggested Beer Style</b>
HopPlus® Mango IPA	Mango forward hop bomb	15ml/hl	IPA, NEIPA
HopPlus® Tropical	Tropical fruit meets tropical hops	10ml/hl	NEIPA, Pales
HopPlus® Orange Blossom	Juicy orange w/citrus hops	10ml/hl	Pales, Blondes
HopPlus® Lemon Radler	Refreshing lemon citrus notes	15ml/hl	Lagers, Blondes
Hopplus® Vanilla Espresso	Creamy coffee with subtle spice	20ml/hl	Stouts & Porters

### **Product Specifications:**

Description: see individual tech spec

Odour: characteristic of named sample

Specific gravity (20°C) see individual tech spec

Flash point: >90°C (194°F)



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# HopPlus®



## **Product use:**

The HopPlus® extracts are designed to be used post fermentation, to create unique speciality beers where specific characteristics cannot be achieved by hops alone. As such they improve beer consistency, reduce microbial risks and reduce beer loss through absorption onto any waste material.

The extracts are 100% natural and fully soluble, they add no bitterness or haze to beer.

## **Late Stage Differentiation**

HopPlus® can be used to differentiate from a single wort stream to create a speciality or seasonal beer quickly and easily.

## **Pivoting and New Product Development**

Development times are dramatically reduced as benchtop evaluations can provide indicative beer character. TNS can support NPD work.

## **Cost Reduction**

Improved utilisation will reduce the cost in use and realise no beer loss when using HopPlus®

HopPlus® are fully soluble in beer and are intended for addition to fined or filtered beers. They can be dosed into finished beer without the need for subsequent filtration, with gentle mixing required for maximum effect. The optimum way of dosing HopPlus® products is with an in-line dosing system into the beer stream on transfer to the bright beer tank or racking vessel.

HopPlus® can also be added direct into the finishing vessel prior to transferring the beer, where the transfer provides mixing. For dosing direct to casks, we recommend doing so either during the racking process or into the full cask. HopPlus® should be added separately from cask finings.

## **Product Development:**

Trials to determine the concentration required for balanced beer aroma and flavour effect should start with initial dose rate of 10ml/hl of HopPlus®.

This can be dosed to a bottle of beer using a pipette at a rate of 0.1 µL/ml bottle volume (i.e for a 330 ml bottle dose 33 µl). Chill the beer to normal drinking temperature and add the required volume of HopPlus® into the beer. Re-cap the bottle, inverting to mix and then chill for minimum 2 hours before tasting.

## **Dose rate:**

Typical dose rates are in the range of 5 – 40 ml/hl (0.05 – 0.4 ml/l). Dependent on base beer style and desired effect. Dose rate can be altered within this range. A good starting dose is 10ml/hl equivalent. (Note 1ml is equivalent to 10ppm)

## **Calculation example for a barrel or cask –**



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	<i>Equivalent</i>	<i>Equivalent</i>	<b>Dose rate</b>	<b>Addition rate</b>
36 gallon UK barrel	<i>288 pints</i>	<i>164 litres</i>	10ml per hl	16ml per barrel
9 gallon cask	<i>72 pints</i>	<i>41 litres</i>	10ml per hl	4ml per cask
31 gallon US barrel	<i>206 pints</i>	<i>117 litres</i>	10ml per hl	12ml per barrel

Bench top trials can be viewed at our website: [www.totallynaturalsolutions.com](http://www.totallynaturalsolutions.com)

#### **Packaging:**

Standard packaging for HopPlus® is a 1 litre or a 5 litre aluminium flask, or 20lt steel lacquered drums. 6 x 15ml sample packs, 100ml and 500ml bottles are available on our webshop.

#### **Storage and shelf life:**

HopPlus® products are stable in unopened containers for at least 12 months in the packaging supplied and should be stored at 5 - 25°C. Once opened they should ideally be used within 3 months.

#### **Regulatory:**

HopPlus® are made using clean label technologies, without solvent residues or chemical reagents. In the European Union they may be classified as natural flavouring or extract according to the flavouring legislation (EU1334/2008EC).

In the USA, HopPlus® will require an individual FIDS sheet to comply with TTB regulations. Please get in contact with your requirements.