

Leaf Hops

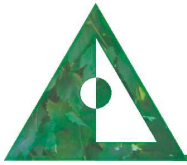
Leaf Hops are the dried and pressed inflorescences of female hop plants. The cones are removed from the plants, kiln-dried to 8.5-10.5% moisture, and pressed into bales on the farms where they are grown – all within hours of being harvested in the field. The typical dosage point in the brewery is in the brew kettle, in the whirlpool of a brewery, or they are used for dry hopping at a later stage during fermentation or storage of beer. They are supplied to brewers as whole, quarter, or mini bales, ready for immediate use. Leaf hops are available for most hop varieties. They are usually used for brewing to provide hop aroma or hop bitterness to beer. It's most important components are hop oils, bitter compounds and polyphenols.

Alternate Product Names

Leaf hops are also known as raw hops, cone hops or whole leaf hops.

Specifications:

Description:	Dried and compressed whole hop cones, having a round or oval shape depending on variety
Colour:	Light- to dark-green (depending on variety)
α-acids:	2 - 20%, depending on variety and crop year
β-acids:	1 - 16%, depending on variety and crop year
Hop oils:	0.3 - 4 ml/100g, depending on variety and crop year
Moisture:	7 - 11%



AROMATRIX FLORA PVT. LTD.

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Quality:

All Aromatrix Flora products are produced in plants accredited to internationally accepted quality standards.

Product Use:

For efficient utilization of bitterness, the Leaf Hops should be added to the wort at the beginning or up to 15 minutes after the start of the boil. Utilization of α -acids into beer depends on the boiling system and conditions and is normally in the range of 20% - 30%. Added late into the boil, utilization of α -acids diminishes as the utilization of the aroma improves giving a characteristic hop flavour in the beer. The quantity to be added is calculated using the α -acids content of the product and the estimated utilization. For aroma, the quantity to be added should preferably be calculated using the oil content of the product.

Packaging:

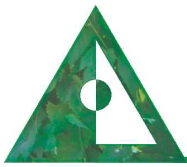
Leaf Hops are normally pressed and wrapped with burlap or polypropylene cloth. $\frac{1}{4}$ or $\frac{1}{2}$ bales can be vacuum packed in laminated polythene / metalized polyester foils and further packed into cartons. Bales are typically rectangular, but sizes and shapes may vary, especially by growing region. They are normally prepared as 40 kg (88 lbs), 60 kg (132 lbs), 80 kg (176 lbs) or 90 kg (200 lbs) nominal size bales.

Storage and Best-Before Recommendation:

Raw Hops should be stored cool at 0 – 5 °C (32 - 41 °F). They are best used within 1 year after harvest. They should be stored cold, dark, and dry (they should not become wet).

Safety:

If dust is generated, it is advisable to use a dust mask. Raw Hops are a combustible material.



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For further information please see the relevant Aromatrix Flora Material Safety Data Sheet (MSDS) from our web site.

Analytical Methods:

The determination of α -acids comprises three types of methods, the specific measurement of α -acids by means of HPLC, spectrophotometric or conductometric methods:

- ❖ α -acids can be measured by any of the following methods:
 - EBC method 7.5 - (α -acids as lead conductometric value (LCV))
 - ASBC Spectrophotometric method (Hops-6) - (α and β -acids)
 - By HPLC, using the current ICE standard, according to the EBC 7.7 method, or the ASBC method (Hops-14) - (α and β -acids)

- ❖ Hop oil concentration can be measured by:
 - EBC 7.10
 - ASBC Hops-13

Technical Support:

We will be pleased to offer help and advice on the use of Leaf Hops in brewing.