



# Columbus Freshpak Hops Technical Specification

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Control classification: Public

Issue No.3

**Country of origin** USA

**Characteristics** Liquorice, Resinous, Black Pepper

**Typical Alpha Acid** 14-20%

**Typical Beta Acid** 4.5-6%

**Typical Cohumulone** 28-32

**Typical Oil Composition** Myrcene: 25-55%, Humulene: 9-25%, Farnesene: <1%

**Typical Total Oil** 1.5-4.5ml/100g

**Flavour Intensity** 8

**Description** - Hops are used to provide bitterness in beer. whole hop cones which have been cleaned, dried.

**Analysis** - Alpha-acids harvest values supplied. Analysis conducted by Lead Conductance  
(LCV) Moisture < 12%

**Physical** Hop Cones

**Aroma** Typical varietal hop aroma

**GRAS Status** Recognised as safe

**Pesticide and Heavy Metal Residues** - Conforms to current EU and US FDA regulations

#### **Packaging / Storage / Best before Date**

Freshpak are packed in 5 or 20kg packs, in food grade packaging incorporating an oxygen barrier. The packs are flushed with an inert gas. Storage should be cool (5°C) away from direct sunlight or heat sources. Best before Date in un-opened packaging is 5 years from harvest when stored cool. Once opened product should be used within a few days to avoid any deterioration.

#### **Other**

Freshpak Hops fully meets UK and EU food safety legislation, regulations and directives as they apply to hops and hop products. It is classified by the FDA as a hop product which may be safely used in the manufacture of beer (in accordance with 21 CFR 182.20).

**Quality Manager** – Tim Luckham

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