



Specialty Malts that Make Your Beer So Special

VITAL

BREWING QUALITY

The alpha content of this variety is relatively high but it is unique especially due to very high content of DMX. The smell of hops is pronounced hoppy and spicy. In brewing trials and beer tasting contests Vital showed good influence on beer taste and smell.



ORIGIN / HISTORY

In 2008 new variety Vital was registered in the Czech Republic. Vital originated from hybrid progenies with majority proportion of Agnus cultivar. Genetically it belongs to the group of high-alpha hops with Euroamerican origin. Variety Vital was bred by Hop Research Institute in Zatec.

AGRONOMICS

Vital is medium susceptible to downy mildew (*Pseudoperonospora humuli*) and tolerant to powdery mildew (*Podosphaera macularis*).

ACID COMPONENTS

Alpha Acids	12 – 16 % w/w
Beta Acids	6 – 10 % w/w
Alpha/Beta Ratio	1.6 – 2.1
Cohumulone	21 – 26 % w/w
Colupulone	45 – 50 % w/w

Type T90 Hop Pellets



OIL COMPONENTS

Total Oil	1.5 – 2.5 mls/100 grams
Caryophyllene	5 – 8 % of whole oil
Humulene	2 – 5 % of whole oil
Myrcene	40 – 55 % of whole oil
Farnesene	1 - 4 % w/w
Selinene	7 -15 % of whole oil

Type Leaf Hops



POLYPHENOLS

Total polyphenols	2.5 – 3.5 % w/w
Xanthohumol	0.7 – 1.0 % w/w
DMX	0.25 – 0.4 % w/w

Castle Malting - True Brewers know why!



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