



HVG BALE HOPS

PRODUCT SPECIFICATION

MANUFACTURER & SUPPLIER

Name: **HVG Hopfenverwertungsgenossenschaft e.G.**
Address: Kellerstr. 1, 85283 Wolnzach (Germany)
Telephone: +49 (0)8442/957-100
Telefax: +49 (0)8442/957-169
E-mail: contact@hvg-germany.de

CUSTOMS TARIFF CODE

1210.10.0000 (Hop cones, neither ground nor powdered nor in the form of pellets)

MEANING OF CODE EXPLAINED BY EXAMPLE

- **32 DE 2020:**
32 = N° of certification center according to “List of hop certification centers and their code numbers”;
Article 24, Regulation (EC) No 1850/2006;
DE: Germany; **2020** = crop year
- **HHMG:** Origin = Hallertau; Variety = Hallertauer Magnum.
Name of the variety according to the “List of world hop varieties of the International Hop Growers`
Convention (IHGC)” in its current version
- **Batch number:** with that code we guarantee that we can trace a hop lot back to the hop-grower without any gaps.

QUALITY AND FOOD SAFETY

- HVG e.G. is certified according DIN ISO 9001:2015 since the year 2000
- HACCP

PRODUCT PROPERTIES

HVG Bale-Hops contain all natural substances of the dried female flower of the hop plant (*Humulus Lupulus*) in their chemical and physical unchanged form. They contain all of the aromatic substances (hop oil), polyphenols and bittering resins (humulones and lupulones) of the whole hop cones. The overall content of these components is dependent on the hop variety and crop singularities.

PRODUCTION PROCESS AND PROCESS SPECIFICATIONS

HVG Bale-Hops are made from whole leaf hops (Farmer-Bale; RB60) by cleaning, drying and afterwards compressing them again under pressure.



PHYSICAL-CHEMICAL DETAILS

Description	Unit	Value
α -acids (resins)	% w/w*	2 – 22
β – acids (resins)	% w/w*	1 – 10
Essential oils	ml/ 100 g*	up to 4
Appearance	*	Dull green with a typical hop aroma
Specific weight	kg/ m ³	250 ± 50
Moisture	%	< 10

*depending on hop variety and crop year

PACKING

The compressed hops are packed in polypropylen (PP) bags. The package weight follows customer request and is usually in the range of 25 to 125 kg (11 to 220 lb).

TRANSPORTATION

In order to guarantee the quality of the product until delivery at the brewery, preventive measures have to be implemented during transportation in order to avoid an exposure of HVG Bale-Hops to temperatures exceeding 25 °C (77 °F) for more than 3 to 4 days. If this temperature requirement cannot be met, we strictly recommend for overseas transportation to use a refrigerated container with a temperature setting of about 4 °C (39 °F). High temperatures during a prolonged period may lead to a degradation of the value-giving compounds of the hops.

STORAGE / STABILITY

Hop constituents oxidise in contact with air, which leads e.g., to a deterioration of bitter acids and essential oils.

Recommended storing conditions to reduce the loss of bittering constituents:

Temperature	Stability
At 0 – 5 °C (32 – 41 °F)	up to 1 year after harvest

For more information see also: Hops – Their Cultivation, composition and usage, 2014, Publisher Hans Carl, ISBN 978-3-418-008-23-3, pp. 152-154, 172-177



PRODUCT USE

For a most effective use it is recommended to shred or loosen the compressed hop material before dosing. Hops provide aroma and bitterness in beer. Traditionally hopping takes place in the wort kettle, but HVG Bale-Hops are well suited for “dry-hopping” preferably after fermentation as well. The possible time for dosing varies so from first-wort hopping, via additions directly before casting, up to direct aroma hopping in the whirlpool or in the fermentation/lager tank. For further information please visit www.hvg-germany.de

HEALTH AND SAFETY

Use protective mask where dust is generated. See MSDS.

ANALYTICAL METHODS

For HVG Bale-Hops the following analysis methods can be applied:

Method	Usage
EBC 7.4	Alpha acids in Hops and Hop products by Lead Conductance Value
EBC 7.7	Alpha and beta acids in Hops and Hop Products by HPLC (ASBC Hops-14)
ASBC	Hops-6 Spectrophotometric method
EBC 7.10 & ASBC Hops-13	Hop oil concentration

OTHER INFORMATION

- The product is accompanied by the phytosanitary certificate, which states that the product has been produced according to the national health regulations.
- The above Information Is based on the current state of knowledge of our product at the time of publication and is furnished without warranty of any kind
- The user must satisfy himself that the product Is entirely suitable for his purposes.

HVG Bale-Hops are a natural product and are not treated with any kind of additives. HVG Bale-Hops are therefore free of artificial food additives.