

多酚香型酒花颗粒

Polyphenol Aroma Pellets

概述 OVERVIEW

多酚香型酒花颗粒由酒花原花制成，可在麦汁煮沸过程中添加至煮沸锅。本品富含多种酒花多酚类物质。Polyphenol Aroma Pellets are a hop product made from leaf hops, added to the wort kettle during the boiling process. They are rich in a range of hop polyphenols.

多酚香型酒花颗粒适合在使用了较高比例的淀粉或糖类辅料的酿造过程中添加， 以提供所需的多酚物质。添加多酚物质将有助于在酿造过程中， 使蛋白质充分凝聚沉淀。Polyphenol Aroma Pellets can be added to provide additional polyphenols in situations where high levels of pure starch or sugar adjuncts are used. The addition of polyphenols helps to ensure that sufficient protein coagulation and precipitation occurs during the brewing process.

多酚香型酒花颗粒能提供一定程度的酒花香气、 和极微量的苦味。Polyphenol Aroma Pellets provide some hop aroma and minimal amounts of bitterness.

规格 SPECIFICATIONS

简述 Short description:	去除苦味的酒花粉末（生产二氧化碳酒花浸膏时分离）压缩而成的圆柱形颗粒，可轻松崩解成粉末。 de-bittered hop powder (from production of CO ² Hop extract) compressed into cylindrical pellets, which easily breaks up into a powder
α-酸 Alpha acids:	<1.5%
酒花油 Hop oils:	<0.1%
水分 Moisture content:	<11%
多酚 Polyphenols:	>4%

性能 PACKAGING

外观 Appearance

多酚香型酒花颗粒为淡黄绿色圆柱体，尺寸约为直径8mm×长度10-25mm。Polyphenol Aroma Pellets are pale yellow-green pellets, approximately 8 mm x 10 - 25 mm in size (diameter x length).

风味 Flavor

多酚香型酒花颗粒仅产生极轻微的苦味。颗粒中所含的硬树脂和多酚类物质，已被证实能够改善啤酒的口感饱满度及整体风味。此外，其所含的芳香物质（如里哪醇）能为啤酒带来典型的酒花香气。Polyphenol Aroma Pellets produce a minimal bitter flavor. The hard resins and polyphenols in the pellets have been shown to contribute to improved mouthfeel and overall beer flavor. Moreover, aroma compounds (e.g. linalool) can contribute to the hoppy character of beer.

利用率 Utilization

实际利用率会因各啤酒厂设备和工艺条件差异而有所不同。Actual utilization will vary from brewery to brewery due to differences in equipment and process conditions.

质量 Quality

所有斯丹纳产品均在符合国际公认质量标准的设施中生产，并配备完善的残留物监测体系。All Hopsteiner products are processed in facilities which fulfill internationally recognized quality standards. A monitoring system for residues is in place.

包装规格 PACKAGING

本产品采用标准包装规格，也可以根据客户要求提供其它规格。

Our products are delivered in their respective recommended standard packaging. Alternatives may be possible upon customer request.

美国(US)与德国(DE)加工厂的包装规格如下：

Standard packages of our processing plants in the USA (US) and Germany (DE) are:

- 五层复合铝箔袋填充惰性气体包装(US / DE)
softpack under inert gas in 5-layer aluminum composite foils (US / DE)

可根据客户需求使用其它包装规格。

Suitable pack sizes are available on request.

产品使用 USAGE

多酚香型酒花颗粒用于补充麦芽和酒花中的多酚物质，以确保蛋白质充分沉淀，从而提升啤酒的胶体稳定性。

Polyphenol Aroma Pellets are used to supplement the polyphenols derived from malt and hops to ensure sufficient precipitation of proteins, thereby improving the colloidal stability of the finished beer.

添加量 Dosage

多酚香型酒花颗粒的添加量需根据具体应用而定，并随酿造过程中所使用的原料、及其他酒花产品而变化。本产品可在煮沸阶段的任意时间点添加。由于不同品种中影响苦味、香气和风味的成分质量与含量存在差异，建议通过酿造试验，来确定其对啤酒风味的具体影响。

The quantity of Polyphenol Aroma Pellets to be added depends on the application and will vary according to the raw materials and other hop products used in the brewing process. They can be added at any time during the boil. To establish what impact they will have on beer flavor, brewing trials are recommended as the quality and quantity of the compounds imparting the bitterness, aroma and flavor will vary among varieties.

添加方法 Application

多酚香型酒花颗粒可由人工称量后，直接添加至麦汁中。此外，得益于其优异的流动性，本品也可实现自动化添加。

Polyphenol Aroma Pellets can be manually weighed out and added directly to the wort. Alternatively, owing to their free-flowing nature, additions of Polyphenol Aroma Pellets can be automated.

存储 Storage

建议在原包装中低于5°C (41 °F)储藏（未启封）。

The recommended storage temperature in the original unopened packaging is < 5°C (41 °F). Short-term, transport-related temperature deviations do not affect product quality.

最佳使用时间 Best Before Date

在建议的储藏条件下，最佳使用时间为生产/包装日期后的五年。

Under the recommended storage conditions, the shelf life from the date of production/ packaging is at least 5 years.

安全性 Safety

确保工作场所通风良好，并佩戴个人防护装备。避免接触眼睛和皮肤，请勿吸入蒸汽或粉尘。更详尽的安全资料请参考斯丹纳产品安全数据表。

Ensure good ventilation of the workplace and wear personal protective equipment. Avoid contact with eyes and skin. Do not inhale vapors or dusts. For full safety information, please refer to the relevant Hopsteiner safety data sheet.

分析方法 ANALYTICAL METHODS

使用ASBC（美国酿造协会）和Analytica-EBC（欧洲酿造协会）等国际权威机构颁布的最新标准方法进行检测。

International approved methods listed in committees such as ASBC or Analytica-EBC using current standards are applied.

产品分析 Product analytics

多酚 Polyphenols

- Analytica-EBC 7.14 (Spectro)

低分子量多酚可通过高效液相色谱法（HPLC）进行检测，需使用相应纯物质作为外标校准品。

Low molecular weight polyphenols can be measured by HPLC using the relevant pure substances as external calibration standards.

苦味物质 Concentration of bitter substances

- Analytica-EBC 7.4 (LCV)
- Analytica-EBC 7.5 (LCV)
- ASBC Hops-6B (LCV)
- Analytica-EBC 7.7 (HPLC)
- ASBC Hops-14 (HPLC)
- ASBC Hops-6A (Spectro)

酒花油含量

Concentration of hop oils

由于酒花油含量极低，目前无法通过现有方法准确测定。

Due to the low amount of hop oil, the concentration cannot be measured using any of the methods currently available.

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