



# PRYSMA®

## CHARACTERISTICS

PRYSMA® is a 100% hop-derived product designed for use as a flavor addition in beer and other beverages. Due to a combination of extraction methods of hop pellets, PRYSMA® is water soluble and flowable at room temperature and fully soluble in warm or cold aqueous solutions, without any additional solvents, carriers or additives.

PRYSMA® provides variety-specific, true-to-type hop character and can be used in different stages of the brewing process, including whirlpool, fermentation and cold conditioning. It contains only trace levels of alpha/beta acids leading to no impact on bitterness to reduce its bitterness and reduced turbidity contributions.

PRYSMA® is a standardized flavor product with consistent values of aroma components to make your production as efficient as possible.

## PRODUCT SPECIFICATIONS

|              |   |
|--------------|---|
| Description: | Appearance: Brown, flowable extract<br>Color: Brown<br>Aroma: Variety-dependent<br>Category: Hop extract, dry hopping |
|--------------|---|

|          |               |
|----------|---------------|
| Density: | 1.1-1.4 g/cm³ |
|----------|---------------|

|              |            |
|--------------|------------|
| Alpha Acids: | < 0.5% w/w |
|--------------|------------|

|                   |            |
|-------------------|------------|
| Iso- Alpha Acids: | < 0.2% w/w |
|-------------------|------------|

|        |        |
|--------|--------|
| Water: | 55-60% |
|--------|--------|

## QUALITY AND FOOD SAFETY

Barth-Haas maintains quality management systems registered to the ISO 9001 standard, as well as food safety management programs based on internationally recognized (HACCP) principles. Please refer to our web site ([www.barthhaas.com](http://www.barthhaas.com)) for more information on our systems and programs.

## PRODUCT USE

PRYSMA® can be used to replace pellets at different stages. In whirlpool and active fermentation applications, 1 kg of PRYSMA® replaces between 5 kg (11 lbs) to 8 kg (18 lbs) of T90 pellets. When dosed during cold conditioning, the replacement rate can be as high as 1:10 to 1:15, with 1 kg of PRYSMA® replacing 10-15 kg (22-33lbs) of T90 pellets. For further information on dosing, see sections Product Handling and Dosing

## PRODUCT HANDLING

- To improve flowability before use, ensure the product is fully warmed up to room temperature, by removing it from cold storage at least 3 hours in advance. A water bath (37°C/100°F) can be used to speed up this process.
- While PRYSMA® is flowable and water soluble, a degree of mechanical agitation is encouraged to guarantee optimum dispersibility. Options include adding PRYSMA® directly into a dynamic dry-hopping system, dosing the product using a "brink" or modified keg and backwashing multiple times with beer or adding it directly into the main vessel followed by pump recirculation.
- PRYSMA® can be dosed inline during transfer by pumping the product directly into the beer stream.
- To fully remove the product from the container, either scrape or rinse the containers.



- Pre-dispersion of PRYSMA® is also possible and should be done in cold or lukewarm deaerated water, wort or beer.

## DOSING

In combination with the replacement rates mentioned in the Product Use section, we recommend the following dosing rates for different applications:

- Whirlpool and active fermentation: 0.5–1.0 g/L
- Post-fermentation, cold conditioning and post-filtration: 0.1–0.5 g/L
- Hop waters, flavored malt beverages (FMBs) and other alternative beverages: 0.05–0.2 g/L

When trying to match the flavor of existing recipes, we recommend replacing pellets in small increments over time and up to 75% of the original hop bill.

For most beer styles and fermented beverages, the best dosing point for PRYSMA® is cold conditioning or post-filtration. When dosed during active fermentation, PRYSMA® delivers more fruity aromas and has not shown to have any negative impact on yeast health.

For use in non-fermented beverages, we recommend to dose in line during a transfer, prior to a pump to have an optimum mixture, and before filtration.

At high addition rates, PRYSMA® may cause some color pickup in the beverage.

## PACKAGING

PRYSMA® is supplied in 1, 5 or 10 kg containers. Containers meet all food industry packaging regulations.

## STORAGE AND BEST-BY RECOMMENDATION

PRYSMA® should be stored at 2-8°C. PRYSMA® is best if used within 18 months after processing. Lower storage temperatures may cause crystallization of the product and affect dispersibility.

Opened bottles should be blanketed with inert gas and resealed if placed back in storage. Once opened, use within 1 month.

## ANALYTICAL METHODS

| Characteristics                  | Method                           |
|----------------------------------|----------------------------------|
| Appearance                       | Visual                           |
| Alpha acids, iso-alpha acids     | EBC 7.8                          |
| Lead, Arsenic, Cadmium, Chromium | Inductively Coupled Plasma       |
| Mercury                          | Atomic Fluorescence Spectrometry |

## SAFETY

Any material that contacts skin should be washed off with soap and water. For more information, download the relevant Safety Data Sheet (SDS) from our website.

## TECHNICAL SUPPORT

BarthHaas will be pleased to offer any help and advice on the use of PRYSMA® in brewing and other applications.

- E-Mail: [brewingsolutions@BarthHaas.de](mailto:brewingsolutions@BarthHaas.de)