



ISOMERIZED HOP EXTRACT (ISO-30)

OVERVIEW

- Isomerized Hop Extract (ISO-30) is the aqueous solution of potassium salts of iso-alpha acids, isolated from CO₂ Extract of bitter hops.
- ISO-30 is used to adjust bitterness or (partially) replace other hop bittering products in any stage of the brewing process, preferably post-fermentation before final filtration.
- Its cost-in-use is minimal as it comes with up to 90% brewhouse yield, yet its dosage should be limited as its bitterness impact and profile can be overpowering.

PROPERTIES & SPECIFICATIONS

- **Appearance:** clear liquid with yellow to light amber color.
- **Iso-alpha acids:** 30% +/- 2% (w/w)
- **Alpha acids:** < 0.6%
- **Beta acids:** < 0.3%
- **Hop oils:** < 0.1%
- **pH:** approx. 9.0
- **Viscosity:** 15 - 20 mPas @ 20°C
- **Density:** approx. 1.07 g/l @ 20°C
- **Flavor:** ISO-30 creates a clean bitter taste in beer or other beverage applications. When using it to impart more than 30% of a beer's total bitterness, the profile may turn out to become sharp and unbalanced. It is thus mainly used to only adjust final bitterness after brewing, or only partially replace other bittering hops.
- **Packaging:** pails, canisters or drums

PRODUCT USE*

- **Application**
ISO-30 is usually added undiluted prior to final filtration, yet it could also be used in earlier brewing stages (in this case with reduced yield). If dilution is necessary, never dilute with beer (pH differences will cause precipitation!), but add ISO-30 into pH-adjusted demineralized water (pH +/- 9.0, use KOH or K₂CO₃). Dosing equipment should be used at a stage where even mixing into the beer stream (e.g., during pumping) is ensured. After use, remaining ISO-30 should be kept cool, while dosing lines should be cleaned with warm demineralized water (slightly alkaline) or ethanol.
- **Utilization**
Depending on process conditions, ISO-30 yield can be up to 90% if used just prior to final filtration.
- **Dosage**
Dosage levels are based on the desired bitter intensity adjustment in the beer (IBU), considering 30% iso-alpha acid content in the extract and up to 90% yield.
- **Analytical Methods**
Iso-alpha acids are usually measured by HPLC (EBC 7.9 or ASBC Hops-9C / -9D).
- **Storage & Best Before Date**
Recommended storage is at 5-15°C in original sealed containers without sunlight exposure. In these conditions, shelf life is at least three (3) years. Once opened, ISO-30 should be consumed within a few days, preferably stored chilled and flushed with inert gases like nitrogen or argon (use of CO₂ is not advised).

*) for safety information, please refer to MSDS