



ISOMERIZED PELLETS

OVERVIEW

- Isomerized Pellets (Iso Pellets) are added to the brew kettle to provide bitterness and hop aroma.
- Due to pre-isomerization of the alpha acids during the production process (using food grade magnesium oxide during warm storage), Iso Pellets offer a significantly higher bittering yield.
- They provide improved utilization, slightly better storage stability, and reduced cost-in-use compared to conventional pellets and hop extracts.

PROPERTIES & SPECIFICATIONS

- **Appearance***: Cylindrical, olive-green pellets, 6mm x 10-15mm in size (diameter x length). Slightly harder than normal pellets, they break up into powder when pressure is applied to solid form.
- **Alpha acids***: 1 – 20% (>90% converted into iso-alpha acids during processing)
- **Beta acids***: 1 – 15%
- **Hop oils***: 0.5 – 5%
- **Moisture**: 6 – 9%
- **Flavor**: aroma and bitterness profile of the used raw hop variety are fully retained, similar to conventional pellets.
- **Packaging**: Iso Pellets are usually packed under inert gas (N2 and/or CO2) in laminated foils of 5 or 10 kg each, in different sized cartons.

PRODUCT USE**

- **Application**
Iso Pellets are used in similar ways as normal P90 or P45, contributing bitterness and aroma character to beer. They can be manually weighed and added directly to the kettle. Alternatively, the addition of Iso Pellets can be automated with dosing systems. A minimum contact time of 5-10 min in boiling wort is recommended.
- **Utilization**
Early kettle addition (up to 40 min after boiling start) enables utilization in the range of 45% to 55%. Even when added later in the boil, utilization is almost the same but with higher aroma yield, depending on process conditions.
- **Dosage**
Iso Pellet addition volumes to wort are typically based on the desired bitter intensity in the beer (IBU). Brewhouse bitterness utilization is usually up to 50% higher than with normal P90.
- **Analytical Methods**
Bittering substances are usually measured by the EBC method 7.11 or ASBC Hops-15. Hop oil content can be measured by methods EBC 7.10 or ASBC Hops-13.
- **Storage & Best Before Date**
Recommended storage is at < 5°C in sealed foils. Opened foils/cartons should be used quickly and stored at 0-5°C to avoid deterioration of the bitter acids and essential oils. If in sealed containers, shelf life is six (6) years.

*) depending on hop variety

**) for safety information, please refer to MSDS