Non-Alcoholic or Low Alcohol Beer
Production Technical Sheet

Traditional, large scale non-alcoholic beers are produced using methods such as distillation or very fine membrane filtration. Additional methods, such as using a low alcohol producing yeast strain, can be used. These yeast typically dislike maltose and will produce between 15-25% attenuation depending on the mash recipe.

YEAST SUGGESTIONS:
- WLP603 Torulaspora delbrueckii
- WLP604 Pichia kudriavzevii - Available upon request, has a 21 day lead time and 1L minimum order requirement.
- WLP618 Saccharomycodes ludwigii - Available upon request, has a 21 day lead time and 1L minimum order requirement.

SUGGESTED PITCHING RATE:
2 million cells/mL

TIPS AND TRICKS:
- Mash recipe will need to reflect a lower amount of fermentables available for the yeast.
- Yeast will impart lower flavor attributes than traditional brewing strains due to reduced fermentation.
- Hop extracts, flavoring can help reduce off flavors such as a “worty” character.
- Blending can help achieve a beer with a low ABV.
- Small scale trials are suggested to optimize nutrients, yeast, and mash for a lower alcohol fermentation.

SUGGESTED ANALYTICAL LABORATORY TESTING SERVICE:
LS6646 - Alcohol by Volume/Weight
Low Alcohol Pilsner

Brew Method: All Grain
Style Name: German Pilsner
Boil Time: 60 min
Efficiency: 76% (ending kettle)

**STATS:**
- Original Gravity: 1.016
- Final Gravity: 1.013
- ABV: 0.5%
- IBU: 19.19
- SRM: 1.44

**FERMENTABLES:**
- German - Pilsner (88.2%)
- German - Wheat Malt (5.9%)
- German - Caramel Pils (5.9%)

**HOPS:**
Select depending on your desired flavor profile

**MASH GUIDELINES:**
- Temperature: 72°C
- Time: 60 minutes

**YEAST:**
- WLP603 *Torulaspora delbrueckii*
- Flocculation: Medium
- Attenuation: 26%
- Fermentation Temperature: 10°C