

BZIONEK

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **41**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **1500 liter(s)**
- Trub loss **5 %**
- Size with trub loss **1575 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **1811.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **1110 liter(s)**
- Total mash volume **1480 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **1110 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **1071.3 liter(s)** of **76C** water or to achieve **1811.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 175 kg (47.3%) | 80 % | 5 |
| Grain | Viking Pilsner malt | 150 kg (40.5%) | 82 % | 4 |
| Grain | Carahell | 25 kg (6.8%) | 77 % | 26 |
| Grain | Viking Wheat Malt | 20 kg (5.4%) | 83 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Mosaic | 180 g | 60 min | 10 % |
| Boil | Ekuanot | 110 g | 60 min | 13 % |
| Boil | Mosaic | 150 g | 50 min | 10 % |
| Boil | ekuanot | 115 g | 50 min | 13 % |
| Boil | Mosaic | 140 g | 45 min | 10 % |
| Boil | ekuanot | 120 g | 45 min | 13 % |
| Boil | Simcoe | 200 g | 25 min | 13.2 % |
| Boil | Mosaic | 150 g | 25 min | 10 % |
| Boil | ekuanot | 150 g | 25 min | 13 % |
| Boil | Simcoe | 150 g | 5 min | 13.2 % |

| | | | | |
|---------------------|---------|--------|--------|------|
| Boil | Mosaic | 150 g | 5 min | 10 % |
| Boil | ekuanot | 150 g | 5 min | 13 % |
| Aroma (end of boil) | Mosaic | 1000 g | 20 min | 10 % |
| Aroma (end of boil) | ekuanot | 1000 g | 20 min | 13 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us-05 | Ale | Dry | 950 g | --- |