

Ale

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **19**
- SRM **5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **41.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **1.2 %/h**
- Boil size **46.1 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.25 liter(s) / kg**
- Mash size **29.3 liter(s)**
- Total mash volume **38.3 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **29.3 liter(s)** of strike water to **69.6C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Sparge using **25.8 liter(s)** of **76C** water or to achieve **46.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 6.4 kg (71%) | 80 % | 5 |
| Grain | Monachijski | 1 kg (11.1%) | 80 % | 16 |
| Grain | Caramunich® typ I | 0.25 kg (2.8%) | 73 % | 80 |
| Grain | Płatki owsiane | 1 kg (11.1%) | 60 % | 3 |
| Grain | Pszeniczny | 0.36 kg (4%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | Lunga | 15 g | 45 min | 10.9 % |
| Boil | Lunga | 20 g | 30 min | 10.9 % |
| Boil | Lunga | 15 g | 5 min | 10.9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| Us-05 | Ale | Dry | 23 g | --- |