

Odpadki

- Gravity **18.9 BLG**
- ABV **8.2 %**
- IBU **12**
- SRM **8.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.2 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.5 liter(s)**
- Total mash volume **34 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **45 min**

Mash step by step

- Heat up **25.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **45 min** at **78C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **26.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|---------------------|----------------|-------|-----|
| Grain | Viking Munich Malt | 3.5 kg (39.8%) | 78 % | 18 |
| Grain | Viking Pilsner malt | 5 kg (56.8%) | 82 % | 4 |
| Adjunct | Rice Hulls | 0.3 kg (3.4%) | 1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Aroma (end of boil) | Tomyski | 100 g | 15 min | 2.8 % |
| Dry Hop | Tomyski | 100 g | 6 day(s) | 2.8 % |
| Dry Hop | Oktawia | 100 g | 6 day(s) | 7.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |