

## Bitterek II

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- Gravity **9.8 BLG**
- ABV **3.8 %**
- IBU **32**
- SRM **11.6**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **29.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **16.2 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **12.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **76C**
- Sparge using **21.2 liter(s)** of **76C** water or to achieve **29.2 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3.7 kg (91.4%) | 80 %  | 5   |
| Grain | Caraaroma            | 0.35 kg (8.6%) | 78 %  | 400 |

### Hops

| Use for | Name                | Amount | Time   | Alpha acid |
|---------|---------------------|--------|--------|------------|
| Boil    | Marynka             | 20 g   | 60 min | 10 %       |
| Boil    | Hallertau Tradition | 20 g   | 30 min | 4 %        |
| Boil    | Hallertau Tradition | 20 g   | 10 min | 4 %        |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11 g   | Fermentis  |