

## ordinary bitter

- Gravity **9.5 BLG**
- ABV **3.7 %**
- IBU **27**
- SRM **7**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

### Steps

- Temp **68 C**, Time **80 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **80 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3 kg (75%)     | 80 %  | 5   |
| Grain | Biscuit Malt         | 0.5 kg (12.5%) | 79 %  | 45  |
| Grain | Karmelowy Czerwony   | 0.5 kg (12.5%) | 75 %  | 59  |

### Hops

| Use for             | Name               | Amount | Time     | Alpha acid |
|---------------------|--------------------|--------|----------|------------|
| Boil                | Fuggles            | 10 g   | 60 min   | 5.9 %      |
| Boil                | East Kent Goldings | 10 g   | 60 min   | 5.4 %      |
| Aroma (end of boil) | Fuggles            | 20 g   | 15 min   | 5.9 %      |
| Aroma (end of boil) | East Kent Goldings | 20 g   | 15 min   | 5.4 %      |
| Dry Hop             | Fuggles            | 20 g   | 7 day(s) | 5.9 %      |
| Dry Hop             | East Kent Goldings | 20 g   | 7 day(s) | 5.4 %      |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | Safale     |

### Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 5 g    | Boil    | 15 min |