

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 |