

Bitter

- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **24**
- SRM **6.1**
- Style **Standard/Ordinary Bitter**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **15.8 liter(s)**

Steps

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

Mash step by step

- Heat up **12.3 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3.2 kg (91.4%) | 79 % | 5 |
| Grain | Strzegom Karmel 150 | 0.3 kg (8.6%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Challenger | 20 g | 60 min | 6 % |
| Boil | Fuggles | 20 g | 25 min | 5 % |
| Boil | Fuggles | 20 g | 5 min | 5 % |