

## Bitter (B)

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- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **31**
- SRM **11.1**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **14.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **75C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt       | 4 kg (83.3%)   | 80 %  | 5   |
| Grain | Caramel/Crystal Malt - 80L | 0.3 kg (6.3%)  | 74 %  | 158 |
| Grain | Weyermann - Carared        | 0.2 kg (4.2%)  | 75 %  | 50  |
| Grain | Biscuit Malt               | 0.15 kg (3.1%) | 79 %  | 50  |
| Grain | Karmelowy Viking           | 0.1 kg (2.1%)  | 75 %  | 300 |
| Grain | Special W                  | 0.05 kg (1%)   | 75 %  | 300 |

### Hops

| Use for | Name               | Amount | Time   | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil    | East Kent Goldings | 30 g   | 60 min | 5.1 %      |
| Boil    | East Kent Goldings | 25 g   | 30 min | 5.1 %      |
| Boil    | East Kent Goldings | 10 g   | 5 min  | 5.1 %      |

### Yeasts

| Name                       | Type | Form  | Amount | Laboratory |
|----------------------------|------|-------|--------|------------|
| WLP002 - English Ale Yeast | Ale  | Slant | 500 ml | White Labs |

## Notes

- Warzenie - 15/03/2022 - 19l, 10.5 BLG  
Na cichą - 27/03/2023  
Butelkowanie - 31/03/2023 - 18l, 65g cukru

24/06/2023 - II miejsce w MPPD 2023  
*Mar 16, 2023, 7:27 AM*