

Bitter #3

- Gravity **9.8 BLG**
- ABV **3.8 %**
- IBU **35**
- SRM **9.9**
- Style **Standard/Ordinary Bitter**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **9.7 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **7.5 liter(s)** of strike water to **71.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **0 min** at **76C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|--------|-----|
| Grain | pale ale | 1.7 kg (79.1%) | 83 % | 4 |
| Grain | Biscuit Malt | 0.2 kg (9.3%) | 79 % | 45 |
| Grain | Słód Caramunich Typ II Weyermann | 0.1 kg (4.7%) | 73 % | 120 |
| Grain | Special W Malt | 0.1 kg (4.7%) | 65.2 % | 315 |
| Grain | crystal chateau castle malting | 0.05 kg (2.3%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil | lunga | 11 g | 60 min | 12.4 % |
| Boil | Saaz (Czech Republic) | 15 g | 15 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------------|------|--------|--------|-------------|
| Wyeast - 1318 London Ale III | Ale | Liquid | 50 ml | Wyeast Labs |