

## extra bitter

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- Gravity **11.4 BLG**
- ABV ---
- IBU **59**
- SRM **5.6**
- Style **Special/Best/Premium 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

### Steps

- Temp **67 C**, Time **80 min**

### Mash step by step

- Heat up **13.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **80 min** at **67C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount        | Yield | EBC |
|-------|---------------------|---------------|-------|-----|
| Grain | Pilzneński          | 4 kg (90.9%)  | 81 %  | 4   |
| Grain | Melanoiden Malt     | 0.2 kg (4.5%) | 80 %  | 39  |
| Grain | Weyermann - Carared | 0.2 kg (4.5%) | 75 %  | 45  |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Admiral | 15 g   | 60 min | 14.3 %     |
| Boil    | Citra   | 20 g   | 55 min | 12 %       |
| Boil    | Citra   | 30 g   | 5 min  | 12 %       |
| Boil    | Fuggles | 20 g   | 5 min  | 4.5 %      |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 10 g   | Fermentis  |