

## Sour ale

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- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **3**
- SRM **4.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **40 min**
- Evaporation rate **10 %/h**
- Boil size **15.4 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

### Steps

- Temp **66 C**, Time **70 min**

### Mash step by step

- Heat up **9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Sparge using **9.4 liter(s)** of **76C** water or to achieve **15.4 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount        | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Weyermann - Pilsner Malt   | 1.8 kg (60%)  | 81 %  | 5   |
| Grain | Weyermann pszeniczny jasny | 1 kg (33.3%)  | 80 %  | 6   |
| Grain | Płatki owsiane             | 0.2 kg (6.7%) | 60 %  | 3   |

### Hops

| Use for   | Name     | Amount | Time     | Alpha acid |
|-----------|----------|--------|----------|------------|
| Boil      | Książęcy | 10 g   | 5 min    | 7 %        |
| Whirlpool | Mosaic   | 25 g   | 0 min    | 10 %       |
| Whirlpool | Książęcy | 25 g   | 0 min    | 7 %        |
| Dry Hop   | Mosaic   | 25 g   | 4 day(s) | 10 %       |
| Dry Hop   | Książęcy | 25 g   | 4 day(s) | 7 %        |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 23 g   | Fermentis  |