

Sour ale

- 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 | Talus | 25 g | 0 min | 8.2 % |
| Dry Hop | Mosaic | 25 g | 4 day(s) | 10 % |
| Dry Hop | Talus | 25 g | 4 day(s) | 8.2 % |

Yeasts

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