

Koniec lata

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **55**
- SRM **5.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **12.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **20.6 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Pilzneński | 3.7 kg (88.1%) | 81 % | 4 |
| Grain | Pszeniczny | 0.3 kg (7.1%) | 85 % | 4 |
| Grain | Strzegom Karmel 150 | 0.2 kg (4.8%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Citra | 25 g | 50 min | 12 % |
| Boil | Amarillo | 5 g | 30 min | 9.5 % |
| Boil | Sabro | 5 g | 30 min | 15 % |
| Boil | Mosaic | 5 g | 30 min | 10 % |
| Boil | Amarillo | 15 g | 5 min | 9.5 % |
| Boil | Sabro | 15 g | 5 min | 15 % |
| Boil | Mosaic | 15 g | 5 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |