

hopa

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **31**
- SRM **6.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **15.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **20 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|-----------------|-------|-----|
| Grain | Soufflet Pale Ale | 2.15 kg (41.3%) | 80 % | 6 |
| Grain | Strzegom Monachijski typ II | 0.35 kg (6.7%) | 79 % | 22 |
| Grain | Strzegom Karmel 100 | 0.1 kg (1.9%) | 75 % | 150 |
| Grain | Karmelowy 50 | 0.25 kg (4.8%) | 75 % | 59 |
| Grain | Viking Pilsner malt | 2.35 kg (45.2%) | 82 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Marynka | 10 g | 60 min | 7.2 % |
| Boil | Centennial | 30 g | 10 min | 9.4 % |
| Boil | amarillo | 30 g | 5 min | 8.3 % |
| Boil | Simcoe | 30 g | 0 min | 11.5 % |
| Boil | Colombus | 5 g | 60 min | 17 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------|------|------|--------|------------|
| Gozdawa Pure Ale Yeast 7 | Ale | Dry | 10 g | Gozdawa |