

hopa

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **34**
- SRM **6.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.8 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 **17.4 liter(s)** of **76C** water or to achieve **27.8 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	Simcoe	30 g	5 min	11.5 %
Boil	amarillo	30 g	0 min	8.3 %
Boil	Colombus	5 g	60 min	17 %

Yeasts

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