

Smash

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **35**
- SRM **3.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilsner (2 Row) Ger	5.5 kg (100%)	81 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Książęcy	35 g	60 min	7.2 %
Whirlpool	Książęcy	65 g	10 min	7.2 %
Dry Hop	Książęcy	100 g	3 day(s)	7.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
US 05	Ale	Dry	10 g	Fermentis