

APA Grażyny

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **15**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **22.9 liter(s)**

Steps

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

Mash step by step

- Heat up **17.4 liter(s)** of strike water to **74.4C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4.5 kg (82.6%)	79 %	6
Grain	Żytni	0.45 kg (8.3%)	85 %	8
Grain	Płatki owsiane	0.5 kg (9.2%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	5 g	60 min	10 %
Boil	Simcoe	15 g	15 min	13.2 %
Whirlpool	Citra	25 g	---	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis