

## APA - warka #5

---

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **34**
- SRM **11.6**
- 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 **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **17.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **0 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (69%)	80 %	5
Grain	Karmelowy Jasny 100-150 EBC - Słodownia Optima	0.75 kg (12.9%)	72.9 %	140
Grain	Monachijski - Słodownia Optima	0.55 kg (9.5%)	78.9 %	18
Grain	Weyermann - Carapils	0.5 kg (8.6%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	30 g	60 min	6 %
Boil	Cascade	20 g	30 min	6 %
Boil	Citra	10 g	15 min	12 %
Dry Hop	Citra	40 g	5 day(s)	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	22 g	Fermentis