

## Dwa razy APA

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- Gravity **14.3 BLG**
- ABV ---
- IBU **27**
- SRM **4.4**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **48 liter(s)**
- Trub loss **5 %**
- Size with trub loss **50.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **60.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **39 liter(s)**
- Total mash volume **52 liter(s)**

### Steps

- Temp **68 C**, Time **40 min**
- Temp **74 C**, Time **20 min**

### Mash step by step

- Heat up **39 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **20 min** at **74C**
- Sparge using **34.7 liter(s)** of **76C** water or to achieve **60.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	13 kg (100%)	85 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	20 g	60 min	4 %
Boil	Marynka	40 g	60 min	10 %
Boil	Cascade PL	20 g	60 min	5.2 %
Boil	Cascade PL	40 g	5 min	5.2 %
Dry Hop	Cascade PL	40 g	7 day(s)	5.2 %
Dry Hop	Nelson Sauvín	50 g	7 day(s)	11 %

### Yeasts

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