

APA red z resztek

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **23**
- SRM **5.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **80 %**
- 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 **10 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 **10 min** at **78C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (90.9%)	80 %	5
Grain	Karmelowy Czerwony	0.5 kg (9.1%)	75 %	59

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	15 g	60 min	11.5 %
Aroma (end of boil)	Chinook	10 g	5 min	8.6 %
Whirlpool	Chinook	20 g	20 min	8.6 %
Dry Hop	Mosaic	30 g	4 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	300 ml	---