

APA cytrusowa

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **51**
- 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- 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	Columbus/Tomahawk/Zeus	25 g	30 min	15.5 %
Aroma (end of boil)	Citra	10 g	15 min	12 %
Aroma (end of boil)	Mosaic	10 g	15 min	10 %
Aroma (end of boil)	Cascade	10 g	15 min	6 %
Aroma (end of boil)	Citra	15 g	5 min	12 %
Aroma (end of boil)	Mosaic	15 g	5 min	10 %
Aroma (end of boil)	Cascade	15 g	5 min	6 %
Aroma (end of boil)	Mosaic	10 g	0 min	10 %
Dry Hop	Cascade	15 g	4 day(s)	6 %
Dry Hop	Mosaic	25 g	4 day(s)	10 %

Yeasts

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

Type	Name	Amount	Use for	Time
Flavor	Skórka słodkiej pomarańczy	20 g	Boil	10 min
Fining	Mech irlandzki	5 g	Boil	10 min