

Kamil i Krzysiek

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **118**
- SRM **2.2**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **69 C**, Time **65 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **65 min** at **69C**
- Keep mash **10 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale	4.75 kg (79.2%)	--- %	---
Grain	crystal 200	0.25 kg (4.2%)	--- %	---
Grain	monachijski	1 kg (16.7%)	--- %	15

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Apollo	18 g	60 min	17 %
Boil	Summit	25 g	60 min	17 %
Boil	Simcoe	30 g	60 min	13.2 %
Aroma (end of boil)	Simcoe	10 g	15 min	13.2 %
Aroma (end of boil)	Cascade	25 g	15 min	6 %
Aroma (end of boil)	Summit	7 g	15 min	17 %
Dry Hop	Citra	25 g	10 day(s)	12 %
Dry Hop	Simcoe	10 g	10 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
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mangrove jack's m36 liberty bell yeast	Ale	Dry	10 g	---
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