

Apka

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **33**
- SRM **4.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

Steps

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

Mash step by step

- Heat up **15.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.8 kg (54.9%)	80 %	5
Grain	Żytni	0.6 kg (11.8%)	85 %	8
Grain	Pszeniczny	0.6 kg (11.8%)	85 %	4
Grain	Płatki owsiane	0.8 kg (15.7%)	85 %	3
Grain	cookie	0.3 kg (5.9%)	80 %	50

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	55 min	8.1 %
Boil	Columbus/Tomahawk/Zeus	10 g	10 min	12.5 %
Boil	Centennial	10 g	10 min	9.7 %
Aroma (end of boil)	Centennial	10 g	0 min	9.7 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	10 g	0 min	12.5 %
Aroma (end of boil)	ekuanot	10 g	0 min	16.1 %
Dry Hop	ekuanot	20 g	3 day(s)	16.1 %
Dry Hop	Centennial	10 g	3 day(s)	10.5 %
Dry Hop	columbus	20 g	3 day(s)	12.5 %
Dry Hop	Mosaic	30 g	3 day(s)	11.5 %

Yeasts

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

Notes

- Wysładzenie 17 litrów.
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