

Apa2019

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **39**
- SRM **5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **32 liter(s)**
- Trub loss **5 %**
- Size with trub loss **35.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **41.5 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **25.6 liter(s)**
- Total mash volume **33.3 liter(s)**

Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **25 min**
- Temp **76 C**, Time **2 min**

Mash step by step

- Heat up **25.6 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **25 min** at **72C**
- Keep mash **2 min** at **76C**
- Sparge using **23.7 liter(s)** of **76C** water or to achieve **41.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6 kg (77.4%)	80 %	5
Grain	Pszeniczny	1 kg (12.9%)	85 %	4
Grain	Carabelge	0.1 kg (1.3%)	80 %	30
Grain	Strzegom Karmel 150	0.15 kg (1.9%)	75 %	150
Grain	Płatki owsiane	0.5 kg (6.5%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	40 g	60 min	12 %
Aroma (end of boil)	Challenger	50 g	10 min	7 %
Dry Hop	Fuggles	100 g	---	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52	Ale	Dry	30 g	Fermentis