

Apka 2.0

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **41**
- SRM **5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 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 **14.9 liter(s)**
- Total mash volume **19.8 liter(s)**

Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **14.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.25 kg (65.7%)	80 %	6
Grain	słód pale cookie	0.7 kg (14.1%)	79 %	25
Grain	Pszoniczny	1 kg (20.2%)	85 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Nugget	15 g	60 min	12.8 %
Boil	Galena	10 g	30 min	14.2 %
Boil	Amarillo	15 g	15 min	8.9 %
Aroma (end of boil)	Simcoe	30 g	1 min	12.1 %
Aroma (end of boil)	Galena	10 g	1 min	14.2 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	20 g	1 min	15.8 %
Whirlpool	Columbus/Tomahawk/Zeus	30 g	1 min	15.8 %
Dry Hop	Simcoe	30 g	3 day(s)	12.1 %
Dry Hop	Citra	55 g	3 day(s)	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	---

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	15 min