

apka

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **36**
- SRM **4.3**
- 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 **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **19.3 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (72.7%)	80 %	5
Grain	Weyermann - Carapils	0.5 kg (9.1%)	78 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (9.1%)	79 %	16
Grain	płatki jęczmienne	0.5 kg (9.1%)	60 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	10 g	40 min	16 %
Boil	Citra	20 g	15 min	12 %
Boil	Warrior	10 g	10 min	16 %
Boil	Warrior	10 g	5 min	16 %
Boil	Citra	10 g	2 min	12 %
Boil	Amarillo	10 g	1 min	8 %
Whirlpool	Amarillo	10 g	1 min	8 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	safale

Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	10 g	Boil	10 min