

Ostatek

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **15**
- SRM **8.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **18.5 liter(s)**
- Total mash volume **23.5 liter(s)**

Steps

- Temp **65 C**, Time **75 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **18.5 liter(s)** of strike water to **71.1C**
- Add grains
- Keep mash **75 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **26.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1 kg (20%)	80 %	5
Grain	Fawcett Maris Otter	0.7 kg (14%)	81 %	6
Grain	Viking Pale Ale malt	0.7 kg (14%)	80 %	5
Grain	Pilznieński	0.5 kg (10%)	81 %	4
Grain	Pszeniczny	0.4 kg (8%)	85 %	4
Grain	Abbey Malt Weyermann	0.8 kg (16%)	75 %	45
Grain	Fawcett Caramalt	0.5 kg (10%)	76 %	69
Grain	Płatki pszeniczne	0.1 kg (2%)	85 %	3
Grain	Płatki owsiane	0.3 kg (6%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	2 g	60 min	15.5 %
Boil	Citra	12 g	30 min	12 %
Whirlpool	Citra	38 g	30 min	12 %
Dry Hop	Citra	100 g	3 day(s)	12 %
Dry Hop	Mosaic	100 g	3 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale

Extras

Type	Name	Amount	Use for	Time
Other	Chłodnica	1 g	Boil	15 min