

apa nie dla psa

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **35**
- SRM **7.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **13.8 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (87%)	80 %	5
Grain	Słód Caramunich Typ II Weyermann	0.2 kg (4.3%)	73 %	120
Grain	Strzegom Karmel 150	0.2 kg (4.3%)	75 %	100
Grain	Płatki owsiane	0.2 kg (4.3%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	20 g	20 min	5.2 %
Boil	Marynka	20 g	15 min	10 %
Boil	Simcoe	30 g	10 min	13.2 %
Aroma (end of boil)	Cascade PL	10 g	0 min	5.2 %
Dry Hop	Cascade PL	70 g	5 day(s)	5.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Safale S-04	Ale	Dry	11.5 g	Safale
-------------	-----	-----	--------	--------

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	1.25 g	Boil	12 min