

smoke

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **24**
- SRM **13.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **22.1 liter(s)**

Steps

- Temp **52 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **17.2 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (81.6%)	80 %	5
Grain	Strzegom Czekoladowy 1200	0.15 kg (3.1%)	68 %	1202
Grain	Płatki owsiane	0.5 kg (10.2%)	85 %	3
Grain	Viking Malt Wędzony Czereśnią	0.25 kg (5.1%)	82 %	10

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Green Bullet	10 g	60 min	11 %
Boil	Chinook	10 g	60 min	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis