

Apa

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **22**
- SRM **4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **18.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **30 min** at **72C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (96.2%)	80 %	5
Grain	Słód pszeniczny Bestmalz	0.2 kg (3.8%)	82 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lunga	10 g	60 min	8.5 %
Boil	Lunga	30 g	15 min	8.5 %
Whirlpool	Lunga	30 g	1 min	8.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis