

Polski Pale Ale

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **26**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **86 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **21.3 liter(s)**

Steps

- Temp **67 C**, Time **55 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **16.1 liter(s)** of strike water to **74.6C**
- Add grains
- Keep mash **55 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (76.9%)	81 %	5
Grain	Viking Munich Malt	0.6 kg (11.5%)	78 %	18
Grain	Viking Golden Ale	0.2 kg (3.8%)	80 %	10
Grain	Viking Wheat Malt	0.4 kg (7.7%)	83 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook PL	25 g	60 min	9.1 %
Boil	Chinook PL	10 g	5 min	9.1 %
Boil	Cascade PL	30 g	5 min	4 %
Whirlpool	Cascade PL	70 g	0 min	4 %
Whirlpool	Chinook	15 g	0 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis