

Simple Pale Ale

- Gravity **12.4 BLG**
- ABV ---
- IBU **29**
- SRM **12.6**
- 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 **6 liter(s) / kg**
- Mash size **30 liter(s)**
- Total mash volume **35 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **30 liter(s)** of strike water to **54.7C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **0.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Munich Malt	4 kg (80%)	78 %	22
Grain	Viking Pale Ale malt	1 kg (20%)	80 %	70

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	50 g	20 min	5.2 %
Boil	Styrian Golding	50 g	20 min	3.6 %

Yeasts

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