

pale ale

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **25**
- SRM **4.7**
- 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 **65 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **30 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **24 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **7.3 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	5 kg (83.3%)	80 %	5
Grain	Viking Wheat Malt	1 kg (16.7%)	83 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	25 g	25 min	6.9 %
Aroma (end of boil)	Cascade	25 g	10 min	6.9 %
Aroma (end of boil)	Lemon drop	25 g	10 min	5.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis