

Pale ale

- Gravity **10 BLG**
- ABV **4 %**
- IBU **20**
- SRM **3.9**
- Style **Belgian Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.6 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **45 C**, Time **15 min**
- Temp **50 C**, Time **15 min**
- Temp **55 C**, Time **15 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **48.5C**
- Add grains
- Keep mash **15 min** at **45C**
- Keep mash **15 min** at **50C**
- Keep mash **15 min** at **55C**
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **20.1 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (100%)	80 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	11 %
Aroma (end of boil)	Saaz (Czech Republic)	20 g	15 min	4.5 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	7 g	Boil	15 min
Spice	Skórka bergamotki	5 g	Boil	15 min