

Pale Ale

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **28**
- SRM **5**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **2 %**
- Size with trub loss **22.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.9 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **28.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (90.9%)	80 %	5
Grain	Carahell	0.5 kg (9.1%)	77 %	26

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	English Golding	40 g	60 min	4.8 %
Boil	English Golding	20 g	10 min	4.8 %
Boil	Fuggles	30 g	10 min	4.5 %
Dry Hop	East Kent Goldings	50 g	5 day(s)	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	150 ml	Safale