

# English Pale Ale

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **31**
- SRM **3.5**
- Style **Extra Special/Strong Bitter (English 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 **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **55 C**, Time **0 min**
- Temp **67 C**, Time **75 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **0 min** at **55C**
- Keep mash **75 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.3 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	4 kg (100%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Minstrel	30 g	60 min	4.9 %
Boil	Fuggles	10 g	10 min	4.5 %
Boil	Fuggles	10 g	5 min	4.5 %
Boil	Fuggles	10 g	0 min	4.5 %
Boil	Saaz (Czech Republic)	22 g	60 min	4.5 %

## Yeasts

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