

## Pale ale cascade

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **36**
- SRM **4.8**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **9.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.1 liter(s)**
- Total mash volume **10.8 liter(s)**

### Steps

- Temp **68 C**, Time **65 min**
- Temp **75 C**, Time **5 min**

### Mash step by step

- Heat up **8.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **65 min** at **68C**
- Keep mash **5 min** at **75C**
- Sparge using **6.6 liter(s)** of **76C** water or to achieve **12 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) UK	1.7 kg (63%)	78 %	6
Grain	Briess - Wheat Malt, White	0.85 kg (31.5%)	85 %	5
Grain	Briess - 2 Row Carapils Malt	0.15 kg (5.6%)	75 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	15 g	60 min	6 %
Aroma (end of boil)	Cascade	15 g	15 min	6 %
Whirlpool	Cascade	15 g	25 min	6 %
Dry Hop	Cascade	25 g	3 day(s)	6 %

### Yeasts

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