

# Cascade Pale Ale

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **40**
- SRM **7.5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.9 liter(s)**
- Total mash volume **22.6 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **16.9 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **78C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (79.6%)	80 %	5
Grain	Weyermann - Carared	0.25 kg (4.4%)	75 %	45
Grain	Weyermann Caramunich 3	0.25 kg (4.4%)	76 %	150
Grain	Płatki pszeniczne	0.35 kg (6.2%)	60 %	3
Grain	płatki jęczmienne	0.3 kg (5.3%)	60 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	30 g	60 min	6 %
Boil	Cascade	30 g	15 min	6 %
Aroma (end of boil)	Cascade	40 g	15 min	6 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	4 g	Mash	30 min
Other	Pożywka drożdżowa Fermanits SpringFerm BR-2	2 g	Boil	10 min
Other	kwask askorbinowy	4 g	Bottling	---