

American Cascade Pale Ale 13blg

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **43**
- SRM **5.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **7 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **28.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.3 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **28.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2 kg (46.5%)	80 %	7
Grain	Strzegom Wiedeński	1 kg (23.3%)	79 %	10
Grain	Monachijski	1 kg (23.3%)	80 %	16
Grain	Caramel/Crystal Malt - 10L	0.3 kg (7%)	75 %	20

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	40 g	60 min	6 %
Boil	Cascade	10 g	30 min	6 %
Boil	Cascade	10 g	15 min	6 %
Boil	Cascade	25 g	10 min	6 %
Boil	Cascade	10 g	5 min	6 %
Aroma (end of boil)	Cascade	10 g	1 min	6 %
Dry Hop	Cascade	25 g	7 day(s)	6 %

Yeasts

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