

BIAB APA

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **33**
- SRM **5.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

Steps

- Temp **50 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **70 C**, Time **30 min**

Mash step by step

- Heat up **15.6 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **15 min** at **50C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **70C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Malteurop Pilzneński	2.5 kg (48.1%)	81 %	4
Grain	Malteurop Pale Ale	2.5 kg (48.1%)	80 %	6
Grain	Cara Gold Castlemalting	0.2 kg (3.8%)	78 %	120

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	El Dorado	10 g	60 min	13.2 %
Aroma (end of boil)	cascade	20 g	5 min	5.8 %
Aroma (end of boil)	Citra	30 g	5 min	13.9 %
Aroma (end of boil)	Simcoe	15 g	5 min	11.7 %
Aroma (end of boil)	Amarillo	30 g	5 min	8.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlflock T	1 g	Boil	7 min
Other	witamina c	4 g	Bottling	---
Water Agent	kwask mlekowy	5 g	Mash	60 min