

Single Hop

- Gravity **15 BLG**
- ABV ---
- IBU **52**
- SRM **5.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.3 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **64 C**, Time **25 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **25 min** at **64C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pilzneński Premium 2-5 EBC Weyermann	4 kg (75.2%)	81 %	2.5
Grain	Słód Carabelge 30-35 EBC Weyermann	0.32 kg (6%)	74 %	32.5
Grain	Słód pszeniczny jasny 3-5 EBC Weyermann	0.2 kg (3.8%)	82 %	3.5
Grain	Słód pale ale 5,5-7,5 EBC Weyermann	0.8 kg (15%)	85 %	6.5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	15 g	60 min	13.5 %
Boil	Citra	15 g	30 min	13.5 %
Boil	Citra	20 g	15 min	13.5 %
Aroma (end of boil)	Citra	30 g	0 min	13.5 %
Dry Hop	Citra	20 g	5 day(s)	13.5 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzk	5 g	Boil	15 min