

TeaPA

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **42**
- SRM **6.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **71 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **71C**
- Keep mash **15 min** at **78C**
- Sparge using **19.8 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	4.5 kg (84.9%)	80 %	4
Grain	Słód Caramunich Typ II Weyermann	0.3 kg (5.7%)	73 %	120
Grain	Carabelge	0.5 kg (9.4%)	80 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	60 min	12.8 %
Boil	Amarillo	30 g	5 min	8.9 %
Aroma (end of boil)	Mosaic	30 g	0 min	12.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

Extras

Type	Name	Amount	Use for	Time
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Water Agent	gips	4 g	Boil	15 min
Fining	mech	50 g	Boil	15 min
Flavor	skorka cytryny	20 g	Boil	3 min