

WAPA

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **38**
- SRM **3.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **15 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **15 min** at **72C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3 kg (75%)	81 %	5
Grain	Weyermann pszeniczny jasny	1 kg (25%)	80 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	10 g	60 min	13 %
Aroma (end of boil)	Citra	10 g	20 min	12 %
Aroma (end of boil)	Cascade	10 g	20 min	6 %
Aroma (end of boil)	Chinook	10 g	20 min	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
Brett	Ale	Liquid	1000 ml	own