

Trois Apa

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **29**
- SRM **3.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

Steps

- Temp **69 C**, Time **60 min**

Mash step by step

- Heat up **13.8 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **19.8 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (65.2%)	79 %	6
Grain	Żytmi	1 kg (21.7%)	85 %	8
Grain	Płatki owsiane	0.6 kg (13%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	60 min	11 %
Boil	Mosaic	15 g	15 min	10 %
Boil	Citra	15 g	15 min	12 %
Boil	Mosaic	15 g	0 min	10 %
Boil	Citra	15 g	0 min	12 %
Dry Hop	Citra	20 g	3 day(s)	12 %
Dry Hop	Mosaic	20 g	3 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
wlp644	Ale	Slant	200 ml	white labs