

Ne

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **36**
- SRM **3.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.37 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **5 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **27.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (67.4%)	79 %	6
Grain	Bestmalz Carmel Pils	0.25 kg (5.6%)	75 %	5
Grain	Płatki owsiane	1.2 kg (27%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Apollo	10 g	60 min	18.7 %
Boil	Citra	10 g	60 min	13.7 %
Boil	Apollo	15 g	0 min	18.7 %
Boil	Citra	15 g	0 min	13.7 %
Dry Hop	Apollo	25 g	7 day(s)	18.7 %
Dry Hop	Citra	25 g	7 day(s)	13.7 %

Yeasts

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