

Pol&rock

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **42**
- SRM **3.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.1 liter(s)**
- Total mash volume **23.3 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **5 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **18.1 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (57.9%)	79 %	6
Grain	Płatki żytnie błyskawiczne	0.8 kg (15.4%)	85 %	3
Grain	Płatki owsiane błyskawiczne	0.88 kg (17%)	85 %	3
Grain	Płatki orkiszowe błyskawiczne	0.5 kg (9.7%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	25 g	60 min	7.8 %
Boil	Oktawia	25 g	30 min	7.8 %
Boil	Oktawia	25 g	10 min	7.8 %
Boil	Oktawia	25 g	0 min	7.8 %
Dry Hop	Citra	100 g	7 day(s)	13.7 %

Yeasts

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