

# atak chmielu eksperyment

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **73**
- SRM **7.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **5 %/h**
- Boil size **27.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **18.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **27.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (79.4%)	85 %	7
Grain	Melanoiden Malt	0.3 kg (4.8%)	80 %	39
Grain	Weyermann - Carapils	0.3 kg (4.8%)	78 %	4
Grain	Weyermann - Carared	0.7 kg (11.1%)	75 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Citra	30 g	60 min	12 %
Boil	Simcoe	10 g	20 min	13.2 %
Boil	Cascade	10 g	20 min	6 %
Boil	Citra	10 g	20 min	12 %
Aroma (end of boil)	Citra	10 g	5 min	12 %
Aroma (end of boil)	Cascade	10 g	5 min	6 %
Whirlpool	Amarillo	15 g	20 min	9.5 %
Whirlpool	Citra	20 g	20 min	12 %

Whirlpool	Simcoe	10 g	20 min	13.2 %
Whirlpool	Cascade	20 g	20 min	6 %
Dry Hop	Citra	20 g	2 day(s)	12 %
Dry Hop	Simcoe	10 g	2 day(s)	13.2 %
Dry Hop	Cascade	20 g	2 day(s)	6 %
Dry Hop	Amarillo	15 g	2 day(s)	9.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	23 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Flavor	płatki owsiane	400 g	Mash	70 min
Fining	whirlfloc	1 g	Boil	10 min
Water Agent	gips	4 g	Boil	130 min