

# PIERWSZY ATAK CHMIELU

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **40**
- SRM **2.9**
- Style **American IPA**

## 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 **23.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **1.25 liter(s) / kg**
- Mash size **0.8 liter(s)**
- Total mash volume **1.4 liter(s)**

## Steps

- Temp **70 C**, Time **30 min**
- Temp **100 C**, Time **60 min**

## Mash step by step

- Heat up **0.8 liter(s)** of strike water to **88.8C**
- Add grains
- Keep mash **30 min** at **70C**
- Keep mash **60 min** at **100C**
- Sparge using **22.9 liter(s)** of **76C** water or to achieve **23.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Liquid Extract	Pale Ale	3.4 kg (70.8%)	70 %	---
Dry Extract	Ekstrakt słodowy jasny suchy	0.8 kg (16.7%)	70 %	---
Grain	Weyermann - Carapils	0.2 kg (4.2%)	78 %	4
Grain	Carared	0.2 kg (4.2%)	75 %	39
Grain	Melanoiden Malt	0.2 kg (4.2%)	80 %	39

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	20 g	15 min	13.2 %
Boil	Simcoe	10 g	45 min	13.2 %
Boil	Amarillo	10 g	45 min	9.5 %
Aroma (end of boil)	Simcoe	20 g	1 min	13.2 %
Aroma (end of boil)	Amarillo	10 g	1 min	9.5 %
Aroma (end of boil)	Cascade	10 g	1 min	6 %
Aroma (end of boil)	Citra	20 g	1 min	12 %
Dry Hop	Simcoe	40 g	4 day(s)	13.2 %
Dry Hop	Citra	10 g	4 day(s)	12 %

Dry Hop	Amarillo	10 g	4 day(s)	9.5 %
Dry Hop	Cascade	20 g	4 day(s)	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

## Notes

- Sekcja "Aromat (koniec gotowania)" - chmiele zostały dodane po zakończeniu gotowania. Stąd czas - 1 minuta - orientacyjnie.  
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