A la Atak Chmielu

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **48**
- SRM **11.8**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **20.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **1.8 liter(s)**
- Total mash volume **2.4 liter(s)**

Steps

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

Mash step by step

- Heat up **1.8 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **30 min** at **70C**
- Sparge using **23.9 liter(s)** of **76C** water or to achieve **25.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Liquid Extract	Bruntal Pale Ale	1.7 kg *(37.8%)*	80 %	35
Liquid Extract	Bruntal ekstrakt słodowy jasny	1.7 kg *(37.8%)*	81 %	26
Liquid Extract	Bruntal ekstrakt słodowy pszeniczny	0.5 kg *(11.1%)*	80 %	36
Grain	Weyermann - Carapils	0.2 kg *(4.4%)*	74 %	4
Grain	Weyermann - Carared	0.2 kg *(4.4%)*	70 %	45
Grain	Weyermann - Melanoiden Malt	0.2 kg *(4.4%)*	70 %	53

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	30 g	45 min	11.1 %
Boil	Magnum	5 g	45 min	13.5 %
Boil	Simcoe	10 g	15 min	11.1 %
Boil	Amarillo	10 g	15 min	9.7 %
Aroma (end of boil)	Simcoe	20 g	0 min	11.1 %
Aroma (end of boil)	Amarillo	10 g	0 min	9.7 %
Aroma (end of boil)	Cascade	10 g	0 min	6.8 %

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Aroma (end of boil)	Citra	20 g	0 min	12 %
Dry Hop	Simcoe	40 g	3 day(s)	11.1 %
Dry Hop	Citra	10 g	3 day(s)	12 %
Dry Hop	Amarillo	10 g	3 day(s)	9.7 %
Dry Hop	Cascade	20 g	3 day(s)	6.8 %

Yeasts

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

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