

Atak chmielu

- Gravity **15.2 BLG**
- ABV ---
- IBU **49**
- SRM **6.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.1 liter(s)**
- Total mash volume **28.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **22.1 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **11.7 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Carapils	0.2 kg (3.2%)	78 %	4
Grain	Weyermann - Carared	0.2 kg (3.2%)	75 %	45
Grain	Weyermann - Melanoiden Malt	0.2 kg (3.2%)	81 %	53
Grain	Weyermann - Pale Ale Malt	5.7 kg (90.5%)	85 %	7

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	20 g	45 min	13.2 %
Boil	Simcoe	10 g	20 min	13.2 %
Boil	Amarillo	10 g	20 min	9.5 %
Whirlpool	Simcoe	20 g	15 min	13.2 %
Whirlpool	Amarillo	10 g	15 min	9.5 %
Whirlpool	Cascade	10 g	15 min	6 %
Whirlpool	cirta	20 g	15 min	11 %
Dry Hop	Simcoe	40 g	2 day(s)	13.2 %
Dry Hop	Citra	10 g	2 day(s)	12 %
Dry Hop	Amarillo	10 g	2 day(s)	9.5 %

Dry Hop	Cascade	20 g	2 day(s)	6 %
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Yeasts

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