

# KLON ATAK CHMIELU

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **63**
- SRM **8.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **6 %**
- Size with trub loss **26.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.9 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **27.3 liter(s)**
- Total mash volume **35.1 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **74 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **27.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **74C**
- Keep mash **10 min** at **78C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **31.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	6 kg (76.9%)	85 %	7
Grain	Weyermann - Carared	0.8 kg (10.3%)	75 %	45
Grain	Weyermann - Melanoiden Malt	0.5 kg (6.4%)	81 %	53
Grain	Weyermann - Carapils	0.5 kg (6.4%)	78 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	35 g	60 min	15.5 %
Aroma (end of boil)	Citra	10 g	10 min	12.4 %
Whirlpool	Citra	15 g	20 min	12 %
Aroma (end of boil)	Cascade	10 g	10 min	6 %
Whirlpool	Cascade	15 g	20 min	6 %
Aroma (end of boil)	Simcoe	10 g	10 min	13.2 %
Whirlpool	Simcoe	15 g	20 min	13.2 %
Dry Hop	Citra	20 g	4 day(s)	12 %

Dry Hop	Cascade	20 g	4 day(s)	6 %
Dry Hop	Simcoe	20 g	4 day(s)	13.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
WLP001 - California Ale Yeast	Ale	Liquid	100 ml	White Labs