

## Gwaŧ Chmielu 2

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- Gravity **18.7 BLG**
- ABV **8.1 %**
- IBU **133**
- SRM **8.5**
- Style **Imperial IPA**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **85 min**
- Evaporation rate **10 %/h**
- Boil size **20.6 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **19.8 liter(s)**

### Steps

- Temp **63 C**, Time **60 min**
- Temp **73 C**, Time **10 min**
- Temp **83 C**, Time **10 min**

### Mash step by step

- Heat up **14.6 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **10 min** at **73C**
- Keep mash **10 min** at **83C**
- Sparge using **11.2 liter(s)** of **76C** water or to achieve **20.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	2 kg (38.5%)	80 %	16
Grain	Viking Pilsner malt	2.7 kg (51.9%)	82 %	4
Grain	Caramel/Crystal Malt - 10L	0.2 kg (3.8%)	75 %	20
Grain	Viking Caramel Red	0.3 kg (5.8%)	75 %	60

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	15 g	70 min	9.5 %
Boil	Citra	15 g	70 min	12 %
Boil	Columbus	15 g	70 min	15.5 %
Boil	Simcoe	15 g	70 min	13.2 %
Boil	Cascade	15 g	70 min	6 %
Aroma (end of boil)	Amarillo	15 g	10 min	9.5 %
Aroma (end of boil)	Citra	20 g	10 min	12 %
Aroma (end of boil)	Columbus	15 g	10 min	15.5 %
Aroma (end of boil)	Simcoe	15 g	10 min	13.2 %

Aroma (end of boil)	Cascade	15 g	10 min	6 %
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### Yeasts

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

### Extras

Type	Name	Amount	Use for	Time
Other	Curacao grapefruit peel	20 g	Boil	80 min