

## Made in Poland

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **48**
- SRM **5.1**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **25.4 liter(s)**

### Steps

- Temp **67 C**, Time **90 min**

### Mash step by step

- Heat up **19.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (88.5%)	80 %	5
Grain	Pszeniczny	0.4 kg (7.1%)	85 %	4
Grain	Karmelowy Jasny 30EBC	0.25 kg (4.4%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	25 g	30 min	11 %
Boil	Puławski	30 g	15 min	6 %
Boil	Cascade PL	25 g	10 min	5.2 %
Boil	Oktawia	15 g	10 min	7.8 %
Aroma (end of boil)	Cascade PL	25 g	5 min	5.2 %
Aroma (end of boil)	Oktawia	15 g	5 min	7.8 %
Dry Hop	Cascade PL	50 g	3 day(s)	5.2 %
Dry Hop	Chinook PL	30 g	3 day(s)	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Us-05	Ale	Dry	11 g	---