

Singel Hoop

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **38**
- SRM **4.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **10 %**
- Size with trub loss **49.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **56.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **38.5 liter(s)**
- Total mash volume **49.5 liter(s)**

Steps

- Temp **58 C**, Time **5 min**
- Temp **63 C**, Time **40 min**
- Temp **73 C**, Time **40 min**
- Temp **79 C**, Time **1 min**

Mash step by step

- Heat up **38.5 liter(s)** of strike water to **63.4C**
- Add grains
- Keep mash **5 min** at **58C**
- Keep mash **40 min** at **63C**
- Keep mash **40 min** at **73C**
- Keep mash **1 min** at **79C**
- Sparge using **29.2 liter(s)** of **76C** water or to achieve **56.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	10 kg (90.9%)	80 %	7
Grain	Strzegom Wiedeński	0.6 kg (5.5%)	79 %	10
Grain	Carahell	0.2 kg (1.8%)	77 %	26
Grain	Pszoniczny	0.2 kg (1.8%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	11 %
Boil	Simcoe	20 g	30 min	13.2 %
Boil	Simcoe	20 g	15 min	13.2 %
Boil	Simcoe	20 g	10 min	13.2 %
Boil	Simcoe	20 g	5 min	13.2 %
Dry Hop	Simcoe	40 g	5 day(s)	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
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us-05	Ale	Dry	25 g	---
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Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	8 g	Mash	60 min