

IPA

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **31**
- SRM **8.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **24.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **51 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **56.2C**
- Add grains
- Keep mash **10 min** at **51C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **10.5 liter(s)** of **76C** water or to achieve **24.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	6 kg (85.7%)	80 %	4
Grain	Karmelowy Czerwony	1 kg (14.3%)	75 %	59

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Blanc	15 g	80 min	11 %
Boil	Citra	15 g	20 min	12 %
Boil	Citra	15 g	5 min	12 %
Aroma (end of boil)	Citra	30 g	0 min	12 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
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Flavor	Trawa cytrynowa	30 g	Boil	5 min
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