

spontan

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **40**
- SRM **4.3**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **16.3 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **69 C**, Time **30 min**

Mash step by step

- Heat up **16.3 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **69C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (76.9%)	81 %	4
Grain	Pszeniczny	1.5 kg (23.1%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade PL	40 g	60 min	5.2 %
Boil	Cascade PL	10 g	30 min	5.2 %
Boil	Mosaic	20 g	30 min	10 %
Boil	Mosaic	30 g	1 min	10 %

Yeasts

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