

IPA

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **47**
- SRM **6.3**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **4 %/h**
- Boil size **30.5 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **27.6 liter(s)**
- Total mash volume **34.5 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **27.6 liter(s)** of strike water to **72.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **9.8 liter(s)** of **76C** water or to achieve **30.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	6.5 kg (94.2%)	81 %	4
Grain	Strzegom Karmel 100	0.4 kg (5.8%)	75 %	100

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	30 g	60 min	10.5 %
Boil	Cascade	15 g	40 min	6 %
Boil	Willamette	15 g	40 min	5 %
Aroma (end of boil)	Cascade	15 g	10 min	6 %
Aroma (end of boil)	Willamette	15 g	10 min	5 %
Aroma (end of boil)	Cascade	15 g	5 min	6 %
Aroma (end of boil)	Willamette	15 g	5 min	5 %
Dry Hop	Cascade	30 g	3 day(s)	6 %
Dry Hop	Willamette	30 g	3 day(s)	5 %

Yeasts

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