

IPA

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **55**
- SRM **5.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **10.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	3.6 kg (100%)	80 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	10 %
Boil	Chinook	15 g	15 min	13 %
Aroma (end of boil)	Citra	15 g	0 min	12 %
Aroma (end of boil)	Sabro	15 g	0 min	12 %
Whirlpool	Sabro	10 g	10 min	13 %
Whirlpool	Citra	10 g	10 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safeale US-05	Ale	Dry	11 g	---

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwowarski	5 g	Mash	60 min