

American Bitter

- Gravity **11.2 BLG**
- ABV ---
- IBU **51**
- SRM **7.8**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3.8 kg (95%)	80 %	7
Grain	Simpsons - Crystal Medium	0.2 kg (5%)	74 %	108

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Equinox	20 g	60 min	13.1 %
Boil	Equinox	10 g	30 min	13.1 %
Aroma (end of boil)	Cascade	20 g	5 min	6 %
Aroma (end of boil)	Citra	20 g	3 min	12 %
Aroma (end of boil)	Apollo	15 g	0 min	17 %
Dry Hop	Summit	25 g	5 day(s)	17 %
Dry Hop	Equinox	15 g	5 day(s)	13.1 %

Yeasts

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