

American Bitter

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **39**
- SRM **7.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **10 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **65 C**, Time **60 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **22.4 liter(s)** of **76C** water or to achieve **34.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	maris otter - pale ale	4.5 kg (75%)	83 %	6
Grain	Abbey Malt Weyermann	1 kg (16.7%)	75 %	45
Grain	Biscuit Malt	0.5 kg (8.3%)	79 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	20 min	7.8 %
Whirlpool	Citra	20 g	10 min	12.7 %
Whirlpool	Ekuanot	25 g	10 min	23.9 %
Whirlpool	Centennial	50 g	10 min	8.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Fermentis