

# american bitter

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- Gravity **11.7 BLG**
- ABV ---
- IBU **71**
- SRM **10**
- Style **Special/Best/Premium Bitter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 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 **16.2 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.8 kg (95%)	80 %	5
Grain	Caramel/Crystal Malt - 120L	0.2 kg (5%)	80 %	236

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	12 g	60 min	10 %
Boil	Apollo	18 g	60 min	17 %
Boil	Cascade	20 g	10 min	6 %
Boil	Citra	20 g	5 min	12 %
Boil	Summit	25 g	3 min	17 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar