

# 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    |