

# American Bitter TB

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **44**
- SRM **6.6**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **72 C**, Time **0 min**
- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **0 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **21.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.75 kg (95%)	95 %	5
Grain	Crystal II 200	0.25 kg (5%)	85 %	200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Apollo	18 g	60 min	17 %
Aroma (end of boil)	Cascade	25 g	10 min	6 %
Aroma (end of boil)	Citra	25 g	5 min	12 %
Aroma (end of boil)	Summit	32 g	3 min	17 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	300 ml	Fermentis