

# Bitter

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **30**
- SRM **6**
- 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 **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**

## Mash step by step

- Heat up **13.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.6 kg (78.3%)	85 %	7
Grain	CaraBody	0.5 kg (10.9%)	80 %	4
Grain	Weyermann - Carared	0.5 kg (10.9%)	75 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Styrian Golding	45 g	60 min	3.6 %
Boil	Styrian Golding	30 g	30 min	3.6 %
Aroma (end of boil)	Styrian Golding	20 g	10 min	3.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	20 g	---