

# Bitter

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- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **24**
- SRM **6.1**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **15.8 liter(s)**

## Steps

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

## Mash step by step

- Heat up **12.3 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.2 kg (91.4%)	79 %	5
Grain	Strzegom Karmel 150	0.3 kg (8.6%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	20 g	60 min	6 %
Boil	Fuggles	20 g	25 min	5 %
Boil	Fuggles	20 g	5 min	5 %