

# Ordinary Bitter

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- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **30**
- SRM **7.5**
- 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 **65 %**
- Liquor-to-grist ratio **4.76 liter(s) / kg**
- Mash size **25.6 liter(s)**
- Total mash volume **30.9 liter(s)**

## Steps

- Temp **69 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **25.6 liter(s)** of strike water to **74.1C**
- Add grains
- Keep mash **90 min** at **69C**
- Keep mash **5 min** at **78C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (74.5%)	80 %	5
Grain	Pale Ale - Maris Otter	1 kg (18.6%)	80 %	5
Grain	Crystal 150	0.37 kg (6.9%)	78 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	20 g	40 min	7 %
Boil	Fuggles	32 g	25 min	4.5 %
Boil	Fuggles	24 g	5 min	4.5 %
Boil	Challenger	36 g	4 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM11 Wichrowe Wzgórza	Ale	Liquid	1000 ml	Fermentum Mobile