

# Bitter

- Gravity **10 BLG**
- ABV **4 %**
- IBU **31**
- SRM **6.5**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

## Steps

- Temp **68 C**, Time **75 min**

## Mash step by step

- Heat up **14.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **75 min** at **68C**
- Sparge using **20.8 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pale Ale strzegom	4 kg (83.3%)	79 %	6
Grain	Słód Monachijski Typ II Viking Malt 12-18 EBC	0.4 kg (8.3%)	79 %	14
Grain	Słód Caramunich Typ III Weyerman 140-160	0.2 kg (4.2%)	73 %	150
Grain	Biscuit Malt	0.2 kg (4.2%)	79 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	20 g	60 min	4.5 %
Boil	East Kent Goldings	20 g	60 min	5.1 %
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Boil	East Kent Goldings	20 g	20 min	5.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Other	Mech Irlandzki	5 g	Boil	15 min
Other	Gips piwowarski	10 g	Mash	90 min