

# Bitter

- Gravity **12.1 BLG**
- ABV ---
- IBU **71**
- SRM **7.7**
- 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 **75 min**
- Evaporation rate **10 %/h**
- Boil size **27 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 **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **27 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pszeniczny Bestmalz	1 kg (20%)	82 %	4.5
Grain	Briess - Pale Ale Malt	2 kg (40%)	80 %	6
Grain	Bestmalz Red X	2 kg (40%)	79 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	40 g	60 min	11 %
Boil	Styrian Golding	50 g	20 min	5.3 %
Boil	lunga	10 g	20 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11 g	---