

# Bitter juice

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- Gravity **11 BLG**
- ABV ---
- IBU **37**
- SRM **6.3**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **10 liter(s)**
- Total mash volume **14 liter(s)**

## Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**

## Mash step by step

- Heat up **10 liter(s)** of strike water to **70.4C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	3 kg (75%)	80 %	8
Grain	Mild Malt	1 kg (25%)	80 %	8

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Bramling	30 g	60 min	6 %
Boil	Bramling	20 g	30 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM10 O czym szumią wierzby	Ale	Liquid	30 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	4 g	Boil	15 min