

# Bitter 2024

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- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **23**
- SRM **7.3**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**

## Mash step by step

- Heat up **12.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (93%)	81 %	4
Grain	Cookies	0.1 kg (2.3%)	77 %	50
Grain	Weyermann - Caraamber	0.1 kg (2.3%)	75 %	65
Grain	Caraaroma	0.1 kg (2.3%)	78 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Kent Goldings	10 g	0 min	5.1 %
Boil	Marynka	20 g	60 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM10 O czym szumią wierzby	Ale	Liquid	222.22 ml	Fermentum Mobile

## Notes

- Start  
*Mar 28, 2019, 11:12 PM*