

## Bitter v2

---

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **28**
- SRM **9**
- Style **Special/Best/Premium Bitter**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.4 liter(s)**
- Total mash volume **10.8 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **8.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter Crisp	2 kg (83.3%)	83 %	6
Grain	Fawcett - Crystal	0.25 kg (10.4%)	70 %	160
Grain	Wheat, Torrified	0.15 kg (6.3%)	79 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	15 g	60 min	9 %
Boil	East Kent Goldings	20 g	0 min	4.7 %

### Yeasts

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

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Lactic Acid	6.29 g	Mash	60 min
Water Agent	CaSO4	2.62 g	Mash	60 min