

# bitter

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **32**
- SRM **11.2**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **10 %**
- Size with trub loss **14.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **17.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **14.8 liter(s)**

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	3 kg (91.5%)	81 %	6
Grain	Simpsons - Crystal Medium	0.25 kg (7.6%)	74 %	168
Grain	Weyermann - Dehusked Carafa II	0.03 kg (0.9%)	70 %	837

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	30 g	30 min	7 %
Boil	Challenger	20 g	5 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM11 Wichrowe Wzgórza	Ale	Liquid	50 ml	Fermentum Mobile