

Bitter 1

- Gravity **10 BLG**
- ABV **4 %**
- IBU **30**
- SRM **9.1**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **30 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 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 **68 C**, Time **90 min**

Mash step by step

- Heat up **8.4 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **8.5 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	1.5 kg (62.5%)	81 %	6
Grain	Caramel/Crystal Malt - 60L	0.4 kg (16.7%)	74 %	118
Grain	Wheat, Torrified	0.3 kg (12.5%)	79 %	4
Grain	Pszeniczny	0.2 kg (8.3%)	80 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	13 g	30 min	10 %
Boil	East Kent Goldings	20 g	10 min	6 %
Boil	East Kent Goldings	10 g	2 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 1968 London ESB Ale	Ale	Liquid	1 ml	Wyeast Labs