

## real ale

---

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **39**
- SRM **9.2**
- Style **Special/Best/Premium Bitter**

### Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **45 min**
- Evaporation rate **10 %/h**
- Boil size **16 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.2 liter(s)**
- Total mash volume **12.3 liter(s)**

### Steps

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

### Mash step by step

- Heat up **9.2 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **16 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) UK	2.5 kg (81.2%)	78 %	6
Grain	Amber Malt	0.3 kg (9.7%)	75 %	43
Grain	Black (Patent) Malt	0.02 kg (0.6%)	55 %	1200
Grain	Caramel/Crystal Malt - 40L	0.06 kg (1.9%)	74 %	160
Grain	Briess - Wheat Malt, White	0.2 kg (6.5%)	85 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	25 g	45 min	5.1 %
Aroma (end of boil)	East Kent Goldings	25 g	30 min	5.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP013 - London Ale Yeast	Ale	Liquid	25 ml	White Labs