

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 |