

Bitter

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **42**
- SRM **13.3**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|--------------|-------|-----|
| Grain | Simpsons - Maris Otter | 4 kg (80%) | 81 % | 6 |
| Grain | Fawcett - Dark Crystal | 0.5 kg (10%) | 71 % | 300 |
| Grain | Karmelowy Jasny 30EBC | 0.5 kg (10%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Fuggles | 20 g | 60 min | 4.5 % |
| Boil | Challenger | 20 g | 60 min | 7 % |
| Boil | Fuggles | 20 g | 20 min | 4.5 % |
| Boil | East Kent Goldings | 20 g | 20 min | 5.1 % |
| Boil | Fuggles | 30 g | 5 min | 4.5 % |
| Boil | East Kent Goldings | 30 g | 5 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------------|------|--------|---------|-------------|
| Wyeast - London ESB Ale | Ale | Liquid | 1000 ml | Wyeast Labs |