

# 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 |