

# Bitter Angielski

---

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **35**
- SRM **7.2**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **20.7 liter(s)**

## Fermentables

| Type  | Name                     | Amount        | Yield | EBC |
|-------|--------------------------|---------------|-------|-----|
| Grain | Simpsons - Maris Otter   | 4 kg (87%)    | 81 %  | 6   |
| Grain | simpsons - crystal Light | 0.3 kg (6.5%) | 75 %  | 95  |
| Grain | Amber Malt               | 0.3 kg (6.5%) | 75 %  | 43  |

## Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | Challenger | 30 g   | 60 min | 7 %        |
| Boil                | Challenger | 20 g   | 20 min | 7 %        |
| Boil                | Fuggles    | 20 g   | 10 min | 4.5 %      |
| Aroma (end of boil) | Fuggles    | 30 g   | 0 min  | 4.5 %      |

## Yeasts

| Name                 | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale  | Dry  | 11 g   | Danstar    |