

# Bitter

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **27**
- SRM **7.2**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **32.9 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt  | 2 kg (40.7%)   | 82 %  | 4   |
| Grain | Viking Pale Ale malt | 2.5 kg (50.9%) | 80 %  | 5   |
| Grain | Strzegom Karmel 150  | 0.4 kg (8.1%)  | 75 %  | 150 |
| Grain | Czekoladowy          | 0.01 kg (0.2%) | 60 %  | 788 |

## Hops

| Use for | Name               | Amount | Time   | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil    | East Kent Goldings | 35 g   | 55 min | 5.1 %      |
| Boil    | Fuggles            | 15 g   | 30 min | 4.5 %      |
| Boil    | Bramling           | 15 g   | 30 min | 6 %        |
| Boil    | East Kent Goldings | 15 g   | 2 min  | 5.1 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11 g   | ---        |