

# Extra Strong Bitter

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **42**
- SRM **10**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **54 liter(s)**
- Trub loss **5 %**
- Size with trub loss **56.7 liter(s)**
- Boil time **30 min**
- Evaporation rate **10 %/h**
- Boil size **65.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **44.4 liter(s)**
- Total mash volume **59.2 liter(s)**

## Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **44.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **35.6 liter(s)** of **76C** water or to achieve **65.2 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 10 kg (67.6%)  | 80 %  | 5   |
| Grain | COOKIE Viking Malt   | 2.5 kg (16.9%) | 72 %  | 40  |
| Grain | Caramunich® typ I    | 1.8 kg (12.2%) | 73 %  | 80  |
| Grain | Płatki jęczmienne    | 0.25 kg (1.7%) | 70 %  | 5   |
| Grain | Płatki pszeniczne    | 0.25 kg (1.7%) | 60 %  | 3   |

## Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Magnum            | 10 g   | 60 min | 12.7 %     |
| Boil                | Puławski          | 90 g   | 60 min | 7.6 %      |
| Boil                | Fuggles           | 30 g   | 20 min | 5 %        |
| Boil                | Magnat            | 30 g   | 15 min | 11.2 %     |
| Aroma (end of boil) | Lublin (Lubelski) | 30 g   | 0 min  | 6.5 %      |

## Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 600 ml | ---        |