

EXTRA SPECIAL BITTER

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **46**
- SRM **8.5**
- 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 **24.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **21.5 liter(s)**

Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **13.4 liter(s)** of **76C** water or to achieve **24.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|------------|-------|-----|
| Grain | Pale Ale | 2 kg (40%) | 80 % | 5 |
| Grain | Monachijski typ II | 2 kg (40%) | 79 % | 22 |
| Grain | Red | 1 kg (20%) | 79 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Fuggles | 25 g | 60 min | 6.6 % |
| Boil | Fuggles | 25 g | 45 min | 6.6 % |
| Boil | East Kent Goldings | 25 g | 30 min | 3.6 % |
| Boil | East Kent Goldings | 25 g | 15 min | 3.6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Fermentis |