

## Best Bitter Angielski - 24-03-2018

- Gravity **11.7 BLG**
- ABV ---
- IBU **25**
- SRM **7.3**
- Style **Special/Best/Premium Bitter**

### 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

### Steps

- Temp **50 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **13.2 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name                   | Amount        | Yield  | EBC |
|-------|------------------------|---------------|--------|-----|
| Grain | Briess - Pale Ale Malt | 4 kg (90.9%)  | 80 %   | 7   |
| Grain | Special B Malt         | 0.1 kg (2.3%) | 65.2 % | 315 |
| Grain | Carahell               | 0.3 kg (6.8%) | 77 %   | 26  |

### Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | Minstrel | 30 g   | 60 min | 4.9 %      |
| Boil                | Minstrel | 20 g   | 30 min | 4.9 %      |
| Aroma (end of boil) | Minstrel | 40 g   | 0 min  | 4.9 %      |

### Yeasts

| Name | Type | Form  | Amount | Laboratory |
|------|------|-------|--------|------------|
| S-04 | Ale  | Slant | 100 ml | ---        |