

## Best Bitter Angielski - 15-03-2020

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **27**
- SRM **7.3**
- Style **Special/Best/Premium Bitter**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

### Steps

- Temp **52 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 **19.3 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

| Type  | Name                   | Amount         | Yield  | EBC |
|-------|------------------------|----------------|--------|-----|
| Grain | Briess - Pale Ale Malt | 5 kg (90.7%)   | 80 %   | 7   |
| Grain | Special B Malt         | 0.13 kg (2.4%) | 65.2 % | 315 |
| Grain | Carahell               | 0.38 kg (6.9%) | 77 %   | 26  |

### Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | Pilgrim    | 15 g   | 60 min | 9 %        |
| Boil                | Willamette | 25 g   | 30 min | 5 %        |
| Boil                | Willamette | 25 g   | 15 min | 5 %        |
| Aroma (end of boil) | Willamette | 50 g   | 0 min  | 5 %        |

### Yeasts

| Name | Type | Form | Amount | Laboratory       |
|------|------|------|--------|------------------|
| S-04 | Ale  | Dry  | 20 g   | Fermentum Mobile |