

## Best Bitter Angielski - 24-03-2018

- Gravity **11.7 BLG**
- ABV **4.7 %**
- 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	---