

## Best Bitter Angielski - 15-08-2020

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **21**
- SRM **5.7**
- 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 **18.6 liter(s)**
- Total mash volume **23.9 liter(s)**

### Steps

- Temp **67 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **18.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **30 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **18.4 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 (94.3%)	80 %	7
Grain	Special B Malt	0.05 kg (0.9%)	65.2 %	315
Grain	Carahell	0.25 kg (4.7%)	77 %	26

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Pilgrim	10 g	60 min	9 %
Boil	Willamette	20 g	30 min	5 %
Boil	Willamette	20 g	15 min	5 %
Aroma (end of boil)	Willamette	60 g	1 min	5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	200 ml	Fermentum Mobile