

## Bitter ESB v2

---

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **40**
- SRM **6**
- 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 **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

### Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.1 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **15.6 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **76C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	2.17 kg (48.5%)	80 %	16
Grain	Pilzneński	1 kg (22.4%)	81 %	4
Grain	Wiedeński	1 kg (22.4%)	79 %	4
Grain	Strzegom Karmel 30	0.3 kg (6.7%)	74 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	6.5 %
Boil	Lublin (Lubelski)	15 g	60 min	5.3 %
Boil	Lublin (Lubelski)	35 g	15 min	5.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Slant	150 ml	Danstar