

ESB extra special bitter Homebrew Challenge

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **34**
- SRM **13.2**
- 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 **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **25.6 liter(s)**

Steps

- Temp **66.5 C**, Time **90 min**
- Temp **72 C**, Time **15 min**

Mash step by step

- Heat up **20.5 liter(s)** of strike water to **72.3C**
- Add grains
- Keep mash **90 min** at **66.5C**
- Keep mash **15 min** at **72C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	4.46 kg (86.9%)	81 %	6
Grain	Crystal II 200	0.46 kg (9%)	71 %	200
Grain	Brown fewcett	0.21 kg (4.1%)	70 %	200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	40 g	60 min	4.5 %
Aroma (end of boil)	East Kent Goldings	40 g	20 min	5.1 %
Aroma (end of boil)	East Kent Goldings	10 g	0 min	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM10 O czym szumią wierzby	Ale	Liquid	100 ml	Fermentum Mobile