

Esb

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **8**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **52.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **63.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **32.4 liter(s)**
- Total mash volume **43.2 liter(s)**

Steps

- Temp **67 C**, Time **40 min**
- Temp **74 C**, Time **20 min**

Mash step by step

- Heat up **32.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **20 min** at **74C**
- Sparge using **41.7 liter(s)** of **76C** water or to achieve **63.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) UK	10 kg (88.5%)	83 %	6
Grain	Briess - Caracrytal	0.8 kg (7.1%)	78 %	150
Sugar	Muscovado jasny	0.5 kg (4.4%)	100 %	28

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	60 g	70 min	5.1 %
Boil	East Kent Goldings	30 g	7 min	5.1 %
Boil	Marynka	20 g	60 min	8.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP002 - English Ale Yeast	Ale	Liquid	250 ml	White Labs
Starter 2 litry				

Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	4 g	Mash	65 min