

Esb nøgne

- Gravity **8.8 BLG**
- ABV **3.4 %**
- IBU **12**
- SRM **9.5**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **52 liter(s)**
- Trub loss **5 %**
- Size with trub loss **54.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **65.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.8 liter(s)**
- Total mash volume **31.7 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **73 C**, Time **10 min**

Mash step by step

- Heat up **23.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **10 min** at **73C**
- Sparge using **49.9 liter(s)** of **76C** water or to achieve **65.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter Crisp	7 kg (83%)	83 %	6
Grain	Amber Malt	0.23 kg (2.7%)	75 %	90
Grain	Simpsons - Crystal Extra Dark	0.7 kg (8.3%)	74 %	300
Sugar	Cukier	0.5 kg (5.9%)	100 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	30 g	60 min	6 %
Whirlpool	Tradition	40 g	20 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand - Lalbrew London English-style	Ale	Dry	22 g	Lallemand

Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	7 g	Mash	60 min

Water Agent	Kwas mlekowy	4 g	Mash	5 min
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