English Ale maris otter

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **25**
- SRM **8.4**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **10 %**
- Size with trub loss **31.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **37.2 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **28 liter(s)**
- Total mash volume **36 liter(s)**

Steps

- Temp **100 C**, Time **5 min**
- Temp **52 C**, Time **20 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **28 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **60 min** at **63C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **78C**
- Keep mash **5 min** at **100C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **37.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	6 kg *(75%)*	81 %	6
Grain	Słód owsiany Fawcett	1 kg *(12.5%)*	61 %	5
Grain	Fawcett - Crystal	0.5 kg *(6.3%)*	70 %	160
Grain	Płatki owsiane	0.5 kg *(6.3%)*	60 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	30 g	60 min	5.8 %
Boil	Fuggles	30 g	15 min	4.5 %
Boil	Fuggles	20 g	5 min	4.5 %
Aroma (end of boil)	Challenger	20 g	15 min	5.8 %