

london bitter 39+20

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **40**
- SRM **5.3**
- Style **English IPA**

Batch size

- Expected quantity of finished beer **59 liter(s)**
- Trub loss **8 %**
- Size with trub loss **69.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **11 %/h**
- Boil size **84.9 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **38.9 liter(s)**
- Total mash volume **53.3 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **38.9 liter(s)** of strike water to **74.5C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **60.4 liter(s)** of **76C** water or to achieve **84.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) UK	13 kg (90.3%)	78 %	6
Grain	Caramel/Crystal Malt - 20L	1.4 kg (9.7%)	75 %	39

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Azacca	55 g	60 min	14 %
Aroma (end of boil)	Citra	70 g	15 min	12 %
Whirlpool	Citra	150 g	0 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	33 g	Danstar

Extras

Type	Name	Amount	Use for	Time
Fining	protofloc	10 g	Boil	15 min
Water Agent	Lactic Acid	15 g	Mash	60 min