

English Lager

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **39**
- SRM **4.6**
- Style **English IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **51 C**, Time **15 min**
- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **45 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **55.4C**
- Add grains
- Keep mash **15 min** at **51C**
- Keep mash **15 min** at **62C**
- Keep mash **45 min** at **72C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	5 kg (100%)	80 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	40 min	10.5 %
Boil	lunga	20 g	40 min	10.5 %
Boil	Fuggles	20 g	15 min	5.3 %
Boil	East Kent Goldings	20 g	15 min	4.7 %
Boil	Fuggles	30 g	5 min	5.3 %
Boil	East Kent Goldings	30 g	5 min	4.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Slant	200 ml	Fermentum Mobile