## **Guiness Clone**

- Gravity 11.2 BLG
- ABV 4.5 %
- IBU **40**
- SRM 39.8

#### **Batch size**

- Expected quantity of finished beer 20 liter(s)
- Trub loss 0 %
- Size with trub loss 20 liter(s)
- Boil time 60 min
- Evaporation rate 15 %/h
- Boil size 25.3 liter(s)

### **Mash information**

- Mash efficiency 70 %
- Liquor-to-grist ratio 4 liter(s) / kg
- Mash size 18.1 liter(s)
- Total mash volume 22.7 liter(s)

#### Steps

- Temp 57 C, Time 30 min
  Temp 67 C, Time 90 min
  Temp 76 C, Time 15 min

# Mash step by step

- Heat up 18.1 liter(s) of strike water to 61.6C
- Add grains
- Keep mash 30 min at 57C
- Keep mash 90 min at 67C
- Keep mash 15 min at 76C
- Sparge using 11.7 liter(s) of 76C water or to achieve 25.3 liter(s) of wort

### **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Pale Malt, Maris Otter	3 kg <i>(66.2%)</i>	82.5 %	7
Grain	Barley, Flaked	1.03 kg <i>(22.7%)</i>	76.1 %	4
Grain	Roasted Barley	0.5 kg <i>(11%)</i>	74 %	1624

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings (EKG)	50 g	60 min	4.7 %
Boil	Marynka	10 g	60 min	10 %

## **Yeasts**

Name	Туре	Form	Amount	Laboratory
Irish Ale	Ale	Liquid	926.78 ml	Wyeast Labs