#### **Guinness**

- Gravity 10.5 BLG
- ABV 4.2 %
- IBU **32**
- SRM **21.5**
- Style Dry Stout

#### **Batch size**

- Expected quantity of finished beer 60 liter(s)
- Trub loss 0 %
- Size with trub loss 60 liter(s)
- Boil time 60 min
- Evaporation rate 7 %/h
- Boil size 68.7 liter(s)

## **Mash information**

- Mash efficiency 77 %
- Liquor-to-grist ratio 3 liter(s) / kg
- Mash size 33.6 liter(s)
- Total mash volume 44.8 liter(s)

## **Steps**

- Temp 66 C, Time 60 min
  Temp 76 C, Time 5 min

## Mash step by step

- Heat up 33.6 liter(s) of strike water to 73.7C
- Add grains
- Keep mash 60 min at 66C
- Keep mash 5 min at 76C Sparge using 46.3 liter(s) of 76C water or to achieve 68.7 liter(s) of wort

#### **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	10 kg (89.3%)	82 %	4
Grain	Weyermann - Chocolate Wheat	1.2 kg <i>(10.7%)</i>	74 %	788

# Hops

Use for	Name	Amount	Time	Alpha acid
Boil	iunga	60 g	60 min	12.4 %