# **All Black**

- Gravity 17.2 BLG
- ABV ---
- IBU **88**
- SRM ---
- Style Robust Porter

## **Batch size**

- Expected quantity of finished beer 10 liter(s)
- Trub loss 10 %
- Size with trub loss 11 liter(s)
- Boil time 60 min
- Evaporation rate 15 %/h
- Boil size 12.7 liter(s)

# **Mash information**

- Mash efficiency 80 %
- Liquor-to-grist ratio 3 liter(s) / kg
- Mash size --- liter(s)
- Total mash volume --- liter(s)

## **Steps**

• Temp 65 C, Time 30 min

# Mash step by step

- Heat up liter(s) of strike water to C
- Add grains
- Keep mash 30 min at 65C
- Sparge using liter(s) of C water or to achieve 12.7 liter(s) of wort

## **Fermentables**

Туре	Name	Amount	Yield	EBC
Liquid Extract	Ekstrakt płynny WES Ciemny	1.7 kg <i>(68%)</i>	%	
Dry Extract	Ekstrakt suchy WES jasny	0.8 kg <i>(32%)</i>	%	

# Hops

Use for	Name	Amount	Time	Alpha acid
Boil	EKG	40 g	60 min	11.5 %

#### **Yeasts**

Name	Туре	Form	Amount	Laboratory
Safale S-04	Ale	Dry	7 g	Safale

### **Extras**

Туре	Name	Amount	Use for	Time
Spice	Kawa	150 g	Bottling	