

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

| Type | Name | Amount | Yield | EBC |
|----------------|----------------------------|--------------|-------|-----|
| Liquid Extract | Ekstrakt płynny WES Ciemny | 1.7 kg (68%) | --- % | --- |
| Dry Extract | Ekstrakt suchy WES jasny | 0.8 kg (32%) | --- % | --- |

Hops

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

Yeasts

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

Extras

| Type | Name | Amount | Use for | Time |
|-------|------|--------|----------|------|
| Spice | Kawa | 150 g | Bottling | --- |