

Ris xd

- Gravity **26.4 BLG**
- ABV **12.5 %**
- IBU **68**
- SRM **51.1**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **7 liter(s)**
- Trub loss **5 %**
- Size with trub loss **7.3 liter(s)**
- Boil time **240 min**
- Evaporation rate **15 %/h**
- Boil size **13 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **15.6 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **11.5 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **5.6 liter(s)** of **76C** water or to achieve **13 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|-----------------|-------|-----|
| Grain | Pilzneński | 2.85 kg (69.5%) | 81 % | 4 |
| Grain | Płatki owsiane | 0.5 kg (12.2%) | 60 % | 3 |
| Grain | Abbey Malt Weyermann | 0.15 kg (3.7%) | 75 % | 45 |
| Grain | Fawcett - Crystal | 0.15 kg (3.7%) | 70 % | 160 |
| Grain | Weyermann - Dehusked Carafa II | 0.2 kg (4.9%) | 70 % | 837 |
| Grain | Jęczmień palony | 0.15 kg (3.7%) | 55 % | 985 |
| Grain | Castle Chocolat | 0.1 kg (2.4%) | 60 % | 827 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Magnum | 30 g | 60 min | 12.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 6.6 g | Fermentis |