

czarno brazowy kot

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **56**
- SRM **25.5**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **23.4 liter(s)**

Steps

- Temp **69 C**, Time **60 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Weyermann Specjal W | 0.6 kg (10.3%) | 68 % | 300 |
| Grain | Viking Pale Ale malt | 5 kg (85.5%) | 80 % | 5 |
| Grain | Jęczmień palony | 0.25 kg (4.3%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil | Galena | 20 g | 60 min | 12 % |
| Boil | Summit | 15 g | 60 min | 17 % |
| Boil | Summit | 5 g | 10 min | 17 % |
| Boil | Cascade | 10 g | 10 min | 6 % |
| Dry Hop | Summit | 10 g | 7 day(s) | 17 % |
| Dry Hop | Cascade | 20 g | 7 day(s) | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 10.5 g | --- |