

Brazowe Portki

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **38**
- SRM **24.9**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **39.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **48.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **32.2 liter(s)**
- Total mash volume **41.4 liter(s)**

Steps

- Temp **68 C**, Time **90 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **32.2 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **10 min** at **77C**
- Sparge using **25.1 liter(s)** of **76C** water or to achieve **48.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|---------------|-------|------|
| Grain | Viking Pale Ale malt | 6 kg (65.2%) | 80 % | 5 |
| Grain | Brown Malt (British Chocolate) | 2 kg (21.7%) | 70 % | 128 |
| Grain | Weyermann - Caraamber | 0.7 kg (7.6%) | 75 % | 65 |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.5 kg (5.4%) | 73 % | 1001 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Equinox | 50 g | 60 min | 13.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|---------|------------|
| Safale US-05 | Ale | Slant | 1500 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 10 g | Boil | 10 min |