

Salty rye chocolate porter tonka

- Gravity **18.9 BLG**
- ABV **8.2 %**
- IBU **36**
- SRM **32.5**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **20.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.5 liter(s)**
- Total mash volume **27.7 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **21.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **5.4 liter(s)** of **76C** water or to achieve **20.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------|----------------|-------|------|
| Grain | Strzegom Wiedeński | 3 kg (48.8%) | 79 % | 10 |
| Grain | Żytni | 2 kg (32.5%) | 85 % | 8 |
| Grain | Weyermann - Dark Munich Malt | 0.45 kg (7.3%) | 82 % | 22 |
| Grain | Strzegom Czekoladowy jasny | 0.5 kg (8.1%) | 68 % | 400 |
| Grain | Weyermann - Dehusked Carafa III | 0.2 kg (3.3%) | 70 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Columbus | 22 g | 60 min | 15.4 % |