

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 %