Extra Choco Dry Stout

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **46**
- SRM **54.8**

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 **3.5 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **22.9 liter(s)**

Steps

- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17.8 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **50 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg *(68.6%)*	80 %	5
Grain	Jęczmień palony	0.3 kg *(5.9%)*	55 %	985
Grain	Fawcett - Pszeniczny Czekoladowy	0.3 kg *(5.9%)*	73 %	1001
Grain	Weyermann - Chocolate Rye	0.3 kg *(5.9%)*	60 %	600
Grain	spelt chocolate orkiszowy	0.3 kg *(5.9%)*	60 %	550
Grain	Carafa III	0.3 kg *(5.9%)*	70 %	1034
Grain	Strzegom Barwiący	0.1 kg *(2%)*	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	25 g	60 min	11 %
Aroma (end of boil)	Iunga	25 g	15 min	11 %

Yeasts

Name	Type	Form	Amount	Laboratory

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Safale S-04	Ale	Dry	12 g	Safale