Rye Porter

- Gravity **20.7 BLG**
- ABV **9.2 %**
- IBU **44**
- SRM **34.4**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **120 min**
- Evaporation rate **20 %/h**
- Boil size **17.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **23.5 liter(s)**

Steps

- Temp **52 C**, Time **40 min**
- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **18.8 liter(s)** of strike water to **56C**
- Add grains
- Keep mash **40 min** at **52C**
- Keep mash **45 min** at **66C**
- Keep mash **20 min** at **72C**
- Sparge using **3.7 liter(s)** of **76C** water or to achieve **17.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	3 kg *(63.8%)*	81 %	4
Grain	Rye, Flaked	0.7 kg *(14.9%)*	78.3 %	4
Grain	Caraaroma	0.25 kg *(5.3%)*	78 %	400
Grain	Abbey Castle	0.25 kg *(5.3%)*	80 %	45
Grain	Fawcett - Pszeniczny Czekoladowy	0.25 kg *(5.3%)*	73 %	1001
Grain	Biscuit Malt	0.25 kg *(5.3%)*	79 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	15 g	120 min	10.9 %
Boil	Zula	15 g	15 min	8.8 %
Boil	Książęcy	15 g	15 min	8.3 %

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