

Schwarzbier

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **28**
- SRM **22.2**
- Style **Schwarzbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **65 C**, Time **50 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **2 min** at **78C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.05 kg (81%)	81 %	4
Grain	Słód Caramunich Typ II Weyermann	0.25 kg (5%)	73 %	120
Grain	Biscuit Malt	0.25 kg (5%)	79 %	45
Grain	Weyermann - Carafa II special	0.25 kg (5%)	70 %	837
Grain	Fawcett - Pale Chocolate	0.2 kg (4%)	71 %	600

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Mittelfruh	35 g	15 min	3.5 %
Boil	Hallertau Mittelfruh	25 g	5 min	3.5 %
Boil	Magnum	15 g	60 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	173.33 ml	Fermentis