

Schwärzla

- Gravity **18.7 BLG**
- ABV **8.1 %**
- IBU **24**
- SRM **47.6**
- Style **Schwarzbier**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **25.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **19.4 liter(s)**
- Total mash volume **26.6 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **19.4 liter(s)** of strike water to **72.2C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilsner Malz Best	3 kg (41.1%)	81 %	3
Grain	Rauch Malz Best	2 kg (27.4%)	77 %	6
Grain	Münchner Malz Best	2 kg (27.4%)	78 %	20
Grain	Carafa II Best	0.2 kg (2.7%)	65 %	1100
Adjunct	Sinamar	0.1 kg (1.4%)	--- %	8000

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Hallertau Mittelfruh	30 g	90 min	5 %
Boil	Hallertau Mittelfruh	30 g	20 min	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Bavarian Lager 2206	Lager	Slant	300 ml	Wyeast Labs