

Schwärzla

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **23**
- SRM **40.3**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18.5 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 **13.5 liter(s)** of strike water to **72.1C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale Best	3.2 kg (63.4%)	80 %	6
Grain	Münchener Malz Best	1 kg (19.8%)	78 %	20
Grain	Carabelage	0.2 kg (4%)	75 %	30
Grain	Special W	0.3 kg (5.9%)	73 %	300
Grain	Carafa II Best	0.3 kg (5.9%)	65 %	1100
Liquid Extract	sinamar	0.05 kg (1%)	--- %	8500

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Perle	10 g	60 min	9.7 %
Boil	Tettnanger	40 g	15 min	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 1728 Scottish Ale	Ale	Slant	300 ml	Wyeast Labs