

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 |