

Schwärzla 2

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **29**
- SRM **43.4**
- Style **Foreign Extra 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 **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **55 C**, Time **5 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **60 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|--------------------|----------------|-------|------|
| Grain | Pale Ale Best | 3.7 kg (61.2%) | 80 % | 6 |
| Grain | Münchner Malz Best | 1.3 kg (21.5%) | 78 % | 20 |
| Grain | Carabelage | 0.3 kg (5%) | 75 % | 30 |
| Grain | Special W | 0.3 kg (5%) | 73 % | 300 |
| Grain | Carafa II Best | 0.3 kg (5%) | 65 % | 1100 |
| Grain | Chocolate Best | 0.1 kg (1.7%) | 75 % | 900 |
| Liquid Extract | sinamar | 0.05 kg (0.8%) | --- % | 8500 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|------------|--------|--------|------------|
| First Wort | Perle | 20 g | 60 min | 9.7 % |
| Boil | Tettnanger | 30 g | 15 min | 5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

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|-------------------------------|-----|-------|--------|-------------|
| Wyeast - 1728 Scottish Ale | Ale | Slant | 300 ml | Wyeast Labs |
|-------------------------------|-----|-------|--------|-------------|