

XXX

- Gravity **9.8 BLG**
- ABV **3.8 %**
- IBU **45**
- SRM **38.7**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.4 liter(s)**
- Total mash volume **16.6 liter(s)**

Steps

- Temp **72 C**, Time **60 min**
- Temp **80 C**, Time **15 min**

Mash step by step

- Heat up **12.4 liter(s)** of strike water to **80.7C**
- Add grains
- Keep mash **60 min** at **72C**
- Keep mash **15 min** at **80C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|-------|------|
| Grain | Viking Pale Ale malt | 1 kg (24.1%) | 80 % | 5 |
| Grain | Pszeniczny | 0.5 kg (12%) | 85 % | 4 |
| Grain | Słód owsiany Fawcett | 0.5 kg (12%) | 61 % | 5 |
| Grain | Żytni | 0.5 kg (12%) | 85 % | 8 |
| Grain | Płatki owsiane | 0.4 kg (9.6%) | 85 % | 3 |
| Grain | Jęczmień palony | 0.4 kg (9.6%) | 55 % | 1000 |
| Grain | Abbey Malt Weyermann | 0.25 kg (6%) | 75 % | 45 |
| Grain | Carafa III | 0.4 kg (9.6%) | 70 % | 1034 |
| Grain | special x | 0.2 kg (4.8%) | 70 % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|----------|------------|
| Boil | HBC 472 | 25 g | 60 min | 10.6 % |
| Boil | HBC 472 | 10 g | 20 min | 10.6 % |
| Boil | HBC 472 | 10 g | 5 min | 10.6 % |
| Whirlpool | HBC 472 | 10 g | 10 min | 10.6 % |
| Dry Hop | HBC 472 | 10 g | 3 day(s) | 10.6 % |