

Brown brown

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **29**
- SRM **23.5**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **27 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **16.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **27 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5 kg (83.3%)	82 %	4
Grain	Caraaroma	0.3 kg (5%)	78 %	400
Grain	Carafa II	0.1 kg (1.7%)	70 %	812
Adjunct	Briess - Barley Flakes	0.4 kg (6.7%)	70 %	3
Grain	Black Barley (Roast Barley)	0.2 kg (3.3%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	40 g	50 min	7 %
Boil	Lublin (Lubelski)	40 g	5 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale