

stout

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **32**
- SRM **32.6**
- Style **Oatmeal Stout**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **25.9 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **20.1 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.5 kg (60.9%)	80 %	5
Grain	Oats, Flaked	1 kg (17.4%)	80 %	2
Grain	Weyermann - Carafa II	0.5 kg (8.7%)	70 %	1100
Grain	Crystal II 200	0.5 kg (8.7%)	71 %	200
Grain	Biscuit Malt	0.25 kg (4.3%)	79 %	50

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Willamette	50 g	60 min	5 %
Aroma (end of boil)	Willamette	50 g	10 min	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM11 Wichrowe Wzgórza	Ale	Slant	100 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Water Agent	węglan wapnia	10 g	Mash	60 min
Water Agent	gips	1 g	Mash	60 min
Fining	whirlfloc	1 g	Boil	5 min