

## 4 Owsiany stout

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- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **27**
- SRM **35**
- Style **Oatmeal Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **24.1 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 **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Biscuit Malt	1 kg (16%)	77 %	50
Grain	Oats, Flaked	1 kg (16%)	80 %	2
Grain	Weyermann - Pale Ale Malt	3 kg (48%)	85 %	7
Adjunct	Milk Sugar (Lactose)	0.25 kg (4%)	76.1 %	0
Grain	Caraaroma	0.5 kg (8%)	78 %	400
Grain	Weyermann - Carafa I	0.5 kg (8%)	70 %	900

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	55 min	8.5 %
Whirlpool	Willamette	30 g	15 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale