

## outstut

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- Gravity **11.4 BLG**
- ABV ---
- IBU **31**
- SRM **22.5**
- 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 **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

### Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.9 kg (42.2%)	81 %	4
Grain	Monachijski	1.1 kg (24.4%)	80 %	16
Grain	Strzegom Czekoladowy ciemny	0.25 kg (5.6%)	68 %	1100
Grain	Strzegom Karmel 300	0.25 kg (5.6%)	70 %	299
Grain	Płatki owsiane	1 kg (22.2%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	50 g	60 min	5.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us-04	Ale	Dry	11.5 g	---