

## 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<br>Czekoladowy ciemny | 0.25 kg (5.6%) | 68 %  | 1100 |
| Grain | Strzegom Karmel<br>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 | ---        |