

Ris

- Gravity **24.9 BLG**
- ABV **11.6 %**
- IBU **57**
- SRM **34.8**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **8 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **120 min**
- Evaporation rate **8 %/h**
- Boil size **25.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **33.3 liter(s)**
- Total mash volume **42.3 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **33.3 liter(s)** of strike water to **73.4C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **0.8 liter(s)** of **76C** water or to achieve **25.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|--------|------|
| Grain | Viking Pale Ale malt | 7.3 kg (76.8%) | 80 % | 5 |
| Grain | Pale ale cookie | 0.25 kg (2.6%) | 80 % | --- |
| Grain | Weyermann - Carapils | 0.3 kg (3.2%) | 78 % | 4 |
| Grain | Chocolate Malt (UK) | 0.45 kg (4.7%) | 73 % | 887 |
| Grain | Jęczmień palony | 0.1 kg (1.1%) | 55 % | 985 |
| Grain | Strzegom Barwiący | 0.1 kg (1.1%) | 68 % | 1300 |
| Grain | Płatki owsiane | 0.5 kg (5.3%) | 85 % | 3 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (5.3%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil | Chinook | 35 g | 60 min | 13 % |
| Boil | Liberty | 25 g | 60 min | 4.5 % |
| Boil | Sorachi Ace | 25 g | 30 min | 10 % |
| Boil | Śruta kakaowa prażona | 100 g | 10 min | 1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 22 g | Safale |