

RIS

- Gravity **25.5 BLG**
- ABV **12 %**
- IBU **55**
- SRM **45.5**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **3 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **21.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **28.4 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **20.3 liter(s)** of strike water to **76.4C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **77C**
- Sparge using **9.5 liter(s)** of **76C** water or to achieve **21.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.1 kg (50.6%) | 80 % | 5 |
| Grain | Viking Munich Malt | 2 kg (24.7%) | 78 % | 18 |
| Grain | Słód Caramunich Typ II Weyermann | 0.4 kg (4.9%) | 73 % | 120 |
| Grain | Jęczmień palony | 0.4 kg (4.9%) | 55 % | 985 |
| Grain | Strzegom Karmel 600 | 0.3 kg (3.7%) | 68 % | 601 |
| Grain | Pszeniczny | 0.2 kg (2.5%) | 85 % | 4 |
| Grain | Fawcett - Pale Chocolate | 0.25 kg (3.1%) | 71 % | 600 |
| Grain | Płatki jęczmienne | 0.15 kg (1.9%) | 85 % | 3 |
| Grain | Płatki owsiane | 0.15 kg (1.9%) | 85 % | 3 |
| Grain | Płatki pszeniczne | 0.15 kg (1.9%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Marynka | 40 g | 60 min | 10.5 % |
| Boil | Columbus/Tomahawk/Zeus | 8 g | 60 min | 12.5 % |
| Boil | Citra | 17 g | 20 min | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--|------|------|--------|-----------------|
| Mangrove Jack's M42 New World Strong Ale | Ale | Dry | 15 g | Mangrove Jack's |