

RIS Grzegorz

- Gravity **24 BLG**
- ABV **11 %**
- IBU **123**
- SRM **51.4**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11.5 liter(s)**
- Boil time **120 min**
- Evaporation rate **20 %/h**
- Boil size **17.5 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **13.9 liter(s)**
- Total mash volume **19.4 liter(s)**

Steps

- Temp **65 C**, Time **70 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **13.9 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **70 min** at **65C**
- Keep mash **1 min** at **78C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **17.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.2 kg (70%) | 80 % | 5 |
| Sugar | Cukier biały | 0.45 kg (7.5%) | 100 % | 2 |
| Grain | Cara Gold Castlemalting | 0.6 kg (10%) | 78 % | 120 |
| Grain | Weyermann - Carafa II special | 0.3 kg (5%) | 70 % | 837 |
| Grain | Black Barley (Roast Barley) | 0.15 kg (2.5%) | 55 % | 985 |
| Grain | Weyermann - Chocolate Rye | 0.3 kg (5%) | 20 % | 650 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Magnum | 35 g | 70 min | 12.9 % |
| Boil | Waimea | 40 g | 40 min | 14 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------|------|-------|--------|------------------|
| FM54 Gorączka kalifornijska | Ale | Slant | 200 ml | Fermentum Mobile |