

## RIS

- Gravity **28.7 BLG**
- ABV **14 %**
- IBU **115**
- SRM **69.6**
- Style **Russian Imperial Stout**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **120 min**
- Evaporation rate **7 %/h**
- Boil size **27.5 liter(s)**

### Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **42.3 liter(s)**
- Total mash volume **57.4 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **42.3 liter(s)** of strike water to **75.4C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **0.3 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount         | Yield  | EBC |
|-------|-----------------------------|----------------|--------|-----|
| Grain | Castle Pale Ale             | 5 kg (32.1%)   | 80 %   | 8   |
| Grain | Pilzneński                  | 2 kg (12.8%)   | 81 %   | 4   |
| Grain | Strzegom Monachijski typ II | 2 kg (12.8%)   | 79 %   | 22  |
| Grain | Płatki owsiane              | 1.6 kg (10.3%) | 85 %   | 3   |
| Grain | Biscuit Malt                | 1 kg (6.4%)    | 79 %   | 45  |
| Grain | Chocolate Malt (UK)         | 1 kg (6.4%)    | 73 %   | 887 |
| Grain | Simpsons - Crystal Medium   | 1 kg (6.4%)    | 74 %   | 108 |
| Grain | Weyermann Caramunich 3      | 0.5 kg (3.2%)  | 76 %   | 150 |
| Grain | Briess - Black Malt         | 0.5 kg (3.2%)  | 55 %   | 985 |
| Sugar | Candi Sugar, Dark           | 0.5 kg (3.2%)  | 78.3 % | 542 |
| Grain | Weyermann - Melanoiden Malt | 0.25 kg (1.6%) | 81 %   | 53  |
| Grain | Special B Malt              | 0.25 kg (1.6%) | 65.2 % | 315 |

### Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Magnum | 200 g  | 60 min | 10.5 %     |

## Yeasts

| Name                     | Type | Form  | Amount | Laboratory |
|--------------------------|------|-------|--------|------------|
| WLP004 - Irish Ale Yeast | Ale  | Slant | 400 ml | White Labs |

## Extras

| Type        | Name              | Amount | Use for | Time   |
|-------------|-------------------|--------|---------|--------|
| Water Agent | CaCl <sub>2</sub> | 10 g   | Mash    | 60 min |
| Water Agent | Lactic acid       | 20 g   | Mash    | 60 min |
| Fining      | Whirlfloc         | 2.5 g  | Boil    | 10 min |