

Ris

- Gravity **28.7 BLG**
- ABV **14 %**
- IBU **81**
- SRM **52**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **42 liter(s)**
- Total mash volume **56 liter(s)**

Steps

- Temp **69 C**, Time **30 min**
- Temp **73 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **42 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **30 min** at **69C**
- Keep mash **60 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **3.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|--------------------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 10 kg (66.7%) | 80 % | 5 |
| Grain | Strzegom Czekoladowy jasny | 2 kg (13.3%) | 68 % | 400 |
| Grain | Karmelowy Jasny 30EBC | 2 kg (13.3%) | 75 % | 30 |
| Liquid Extract | WES ekstrakt słodowy ciemny | 1 kg (6.7%) | 80 % | 700 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Magnum | 50 g | 60 min | 13.5 % |
| Boil | Chinook | 70 g | 60 min | 13 % |
| Boil | Chinook | 20 g | 25 min | 13 % |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-----------|----------|-----------|-----------|
| Flavor | Oak Chips | 227.28 g | Secondary | 30 day(s) |