

RIS na bis

- Gravity **27.9 BLG**
- ABV **13.4 %**
- IBU **90**
- SRM **42.3**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **5 %**
- Size with trub loss **47.3 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **62.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **65.6 liter(s)**
- Total mash volume **91.9 liter(s)**

Steps

- Temp **67 C**, Time **75 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**
- Temp **62 C**, Time **15 min**

Mash step by step

- Heat up **65.6 liter(s)** of strike water to **70.4C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **75 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **22.9 liter(s)** of **76C** water or to achieve **62.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 15 kg (57.1%) | 80 % | 5 |
| Grain | Strzegom Karmel 150 | 1 kg (3.8%) | 75 % | 150 |
| Grain | Jęczmień palony | 1 kg (3.8%) | 55 % | 985 |
| Grain | Strzegom Barwiący | 0.25 kg (1%) | 68 % | 1300 |
| Grain | Strzegom Czekoladowy ciemny | 0.25 kg (1%) | 68 % | 1200 |
| Grain | Carafa III | 0.25 kg (1%) | 70 % | 1034 |
| Grain | Strzegom Pszeniczny | 1 kg (3.8%) | 81 % | 6 |
| Grain | Casle Malting Whisky Nature | 7.5 kg (28.6%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Izabella | 300 g | 70 min | 5.1 % |
| Boil | Lomik | 100 g | 15 min | 3.8 % |
| Boil | Izabella | 200 g | 15 min | 5.1 % |

| | | | | |
|------|-------|-------|--------|------|
| Boil | lunga | 100 g | 70 min | 11 % |
|------|-------|-------|--------|------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------|------|--------|--------|------------------|
| Danstar - Nottingham | Ale | Dry | 22 g | Danstar |
| FM13 Irlandzkie Ciemności | Ale | Liquid | 80 ml | Fermentum Mobile |