

ris

- Gravity **29 BLG**
- ABV ---
- IBU **34**
- SRM **40**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **50 min**
- Evaporation rate **15 %/h**
- Boil size **22.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **32.1 liter(s)**
- Total mash volume **42.8 liter(s)**

Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **32.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **0.9 liter(s)** of **76C** water or to achieve **22.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 5.5 kg (51.4%) | 79 % | 6 |
| Grain | Jęczmień palony | 0.5 kg (4.7%) | 55 % | 985 |
| Grain | Strzegom Karmel 300 | 0.7 kg (6.5%) | 70 % | 299 |
| Grain | Pszeniczny | 1 kg (9.3%) | 70 % | 4 |
| Grain | Strzegom Barwiący | 0.5 kg (4.7%) | 65 % | 1300 |
| Grain | Weyermann - Smoked Malt | 2 kg (18.7%) | 70 % | 6 |
| Grain | strzegom prażona pszenica | 0.5 kg (4.7%) | 70 % | 1000 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------|--------|--------|------------|
| Aroma (end of boil) | Perle | 70 g | 15 min | 7 % |
| Boil | Tradition | 50 g | 60 min | 5.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|-------------|-----|-----|------|--------|
| Safale S-04 | Ale | Dry | 11 g | Safale |
|-------------|-----|-----|------|--------|