

Zresztekator

- Gravity **18.2 BLG**
- ABV ---
- IBU **23**
- SRM **21.1**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **29.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.6 liter(s)**
- Total mash volume **31.4 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **40 min**

Mash step by step

- Heat up **23.6 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **72C**
- Sparge using **13.4 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.7 kg (59.9%) | 80 % | 5 |
| Grain | Strzegom Monachijski typ I | 1.2 kg (15.3%) | 79 % | 16 |
| Grain | Strzegom Wiedeński | 0.95 kg (12.1%) | 79 % | 10 |
| Grain | BESTMALZ - Best Melanoidin | 0.55 kg (7%) | 75 % | 70 |
| Grain | Caraaroma | 0.25 kg (3.2%) | 78 % | 300 |
| Grain | Strzegom Karmel 300 | 0.2 kg (2.5%) | 70 % | 300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Marynka | 13 g | 60 min | 9.5 % |
| Boil | Tradition | 30 g | 20 min | 4.5 % |
| Boil | Tradition | 15 g | 60 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|-------|--------|-------------|
| Wyeast - Urquell | Lager | Slant | 600 ml | Wyeast Labs |

Extras

| Type | Name | Amount | Use for | Time |
|--------|--------|--------|---------|--------|
| Flavor | śliwka | 300 g | Boil | 15 min |