

Bock

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **29**
- SRM **17.1**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

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

Mash step by step

- Heat up **21 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **72C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Strzegom Wiedeński | 2 kg (28.6%) | 79 % | 10 |
| Grain | Strzegom Monachijski typ I | 3 kg (42.9%) | 79 % | 16 |
| Grain | Strzegom Monachijski typ II | 1 kg (14.3%) | 79 % | 22 |
| Grain | Strzegom Karmel 150 | 0.3 kg (4.3%) | 75 % | 150 |
| Grain | Viking melanoidynowy | 0.5 kg (7.1%) | 75 % | 60 |
| Grain | Strzegom Karmel 600 | 0.2 kg (2.9%) | 68 % | 601 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Magnum | 20 g | 60 min | 12 % |
| Boil | Tradition | 35 g | 20 min | 5.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|-------|--------|------------|
| Oslo | Ale | Slant | 50 ml | --- |