

Proste

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **20**
- SRM **16**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **63 C**, Time **40 min**
- Temp **68 C**, Time **10 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **10 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **10.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|---|---------------|-------|-----|
| Grain | Weyermann - Vienna Malt | 4 kg (62.5%) | 81 % | 8 |
| Grain | Caramel Aromatic - Viking Malt (Strzegom) | 1 kg (15.6%) | 81 % | 180 |
| Grain | Viking Malt Wędzony Czereśnią (Strzegom) | 1 kg (15.6%) | 82 % | 10 |
| Adjunct | Płatki ryżowe błyskawiczne | 0.4 kg (6.3%) | --- % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Marynka | 20 g | 60 min | 10 % |
| Aroma (end of boil) | Lublin (Lubelski) | 15 g | 5 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |