

warka eksperymentalna

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **23**
- SRM **5.1**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **38.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **28.2 liter(s)**
- Total mash volume **37.6 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **28.2 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **38.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|---------------|-------|-----|
| Grain | Viking Pilsner malt | 7 kg (74.5%) | 82 % | 4 |
| Grain | Viking Munich Malt | 1 kg (10.6%) | 78 % | 18 |
| Grain | Płatki owsiane | 0.4 kg (4.3%) | 85 % | 3 |
| Grain | Słód pszeniczny Bestmalz | 1 kg (10.6%) | 82 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |
| Aroma (end of boil) | Amarillo | 10 g | 10 min | 9.5 % |
| Aroma (end of boil) | Cascade PL | 15 g | 10 min | 5.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-33 | Ale | Slant | 5 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------|---------|--------|---------|--------|
| Spice | curacao | 10 g | Boil | 10 min |