

Zmiotki po Piwowarach

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **182**
- SRM **4.2**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **10.4 liter(s)**
- Total mash volume **13 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **62 C**, Time **20 min**
- Temp **68 C**, Time **30 min**

Mash step by step

- Heat up **10.4 liter(s)** of strike water to **59.4C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **20 min** at **62C**
- Keep mash **30 min** at **68C**
- Sparge using **4.9 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2 kg (76.6%) | 80 % | 5 |
| Grain | Viking Pilsner malt | 0.29 kg (11.1%) | 82 % | 4 |
| Grain | Viking Wheat Malt | 0.32 kg (12.3%) | 83 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | lunga | 25 g | 60 min | 11 % |
| Boil | Citra | 10 g | 60 min | 12 % |
| Boil | Cascade | 30 g | 40 min | 6.9 % |
| Boil | lunga | 10 g | 40 min | 11 % |
| Boil | Citra | 40 g | 10 min | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------|------|--------|--------|------------------|
| FM54 Gorączka kalifornijska | Ale | Liquid | 35 ml | Fermentum Mobile |