

smoke

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **24**
- SRM **13.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **22.1 liter(s)**

Steps

- Temp **52 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **17.2 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 4 kg (81.6%) | 80 % | 5 |
| Grain | Strzegom Czekoladowy 1200 | 0.15 kg (3.1%) | 68 % | 1202 |
| Grain | Płatki owsiane | 0.5 kg (10.2%) | 85 % | 3 |
| Grain | Viking Malt Wędzony Czereśnią | 0.25 kg (5.1%) | 82 % | 10 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------|--------|--------|------------|
| Boil | Green Bullet | 10 g | 60 min | 11 % |
| Boil | Chinook | 10 g | 60 min | 13 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |