

:kappa

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **18**
- SRM **4**
- Style **Specialty Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **14 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **66 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **26.6 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **20.7 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3 kg (50.8%) | 80 % | 5 |
| Grain | Płatki owsiane | 1.1 kg (18.6%) | 85 % | 3 |
| Grain | Viking Pilsner malt | 1 kg (16.9%) | 82 % | 4 |
| Grain | płatki jaglane | 0.4 kg (6.8%) | 80 % | 3 |
| Grain | Jęczmień niesłodowany | 0.4 kg (6.8%) | 75 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Mash | Equinox | 10 g | 60 min | 16.1 % |
| Aroma (end of boil) | Citra | 10 g | 5 min | 12 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 20 g | 5 min | 15.8 % |
| Dry Hop | Equinox | 35 g | 7 day(s) | 16.1 % |
| Dry Hop | Columbus/Tomahawk/Zeus | 30 g | 5 day(s) | 15.5 % |
| Dry Hop | Summit | 50 g | 5 day(s) | 18 % |
| Boil | Marynka | 10 g | 60 min | 8.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|-----------------|-----|-------|--------|----|
| FM53 Voss kveik | Ale | Slant | 100 ml | FM |
|-----------------|-----|-------|--------|----|