

#196

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **17**
- SRM **4.3**
- Style **American Wheat or Rye Beer**

Batch size

- Expected quantity of finished beer **20.8 liter(s)**
- Trub loss **7 %**
- Size with trub loss **23.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.08 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18.6 liter(s)**

Steps

- Temp **66 C**, Time **75 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **73.5C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------|-----------------|-------|-----|
| Grain | Maris Otter pale ale | 1.5 kg (33%) | 80 % | 7 |
| Grain | Viking Malt żytni | 1.5 kg (33%) | 85 % | 8 |
| Grain | Viking Malt piłznieński | 1.35 kg (29.7%) | 80 % | 4 |
| Grain | Viking Malt pszeniczny | 0.2 kg (4.4%) | 81 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------|--------|----------|------------|
| Boil | Marynka PL 2022 | 15 g | 60 min | 9.5 % |
| Aroma (end of boil) | Ahtanum US 2021 | 25 g | 1 min | 5.3 % |
| Aroma (end of boil) | Cascade US 2022 | 25 g | 1 min | 6.4 % |
| Dry Hop | Ahtanum US 2021 | 25 g | 7 day(s) | 5.3 % |
| Dry Hop | Cascade US 2022 | 25 g | 7 day(s) | 6.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|--------|------------------|
| FM52 Amerykański Sen | Ale | Slant | 50 ml | Fermentum Mobile |