

## #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