

Sour summer pale ale

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **4.1**

Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **39.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **45.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27.3 liter(s)**
- Total mash volume **36.4 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **4 min**

Mash step by step

- Heat up **27.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **4 min** at **76C**
- Sparge using **27.4 liter(s)** of **76C** water or to achieve **45.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 7.5 kg (82.4%) | 80 % | 5 |
| Grain | Weyermann - Carapils | 1 kg (11%) | 78 % | 4 |
| Grain | Płatki owsiane | 0.5 kg (5.5%) | 60 % | 3 |
| Grain | Karmelowy Jasny 30EBC | 0.1 kg (1.1%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 8.7 % |
| Aroma (end of boil) | Marynka | 20 g | 10 min | 8.7 % |
| Aroma (end of boil) | Lublin (Lubelski) | 50 g | 10 min | 4 % |
| Whirlpool | Lublin (Lubelski) | 100 g | 0 min | 4 % |
| Whirlpool | Zula | 50 g | 0 min | 8.3 % |