

APA 10.02.2021r

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **61**
- SRM **4.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **12.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 3.4 kg (79.1%) | 85 % | 7 |
| Grain | Monachijski | 0.4 kg (9.3%) | 80 % | 16 |
| Grain | Płatki pszeniczne | 0.4 kg (9.3%) | 85 % | 3 |
| Grain | Weyermann - Carapils | 0.1 kg (2.3%) | 78 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Marynka | 10 g | 60 min | 7.1 % |
| Boil | East Kent Goldings | 17 g | 60 min | 4.6 % |
| Boil | Zula | 50 g | 15 min | 9.7 % |
| Boil | Zula | 100 g | 5 min | 9.7 % |