

piwerko

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **9**
- SRM **3.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 2.5 kg (55.6%) | 80 % | 4 |
| Grain | Płatki owsiane | 0.3 kg (6.7%) | 85 % | 3 |
| Grain | Pszoniczny | 1.7 kg (37.8%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------------|--------|----------|------------|
| Aroma (end of boil) | Citra | 10 g | 10 min | 12 % |
| Whirlpool | Citra | 10 g | 10 min | 12 % |
| Whirlpool | Nelson Sauvín | 10 g | 10 min | 11 % |
| Dry Hop | Nelson Sauvín | 40 g | 2 day(s) | 11 % |
| Dry Hop | Citra | 40 g | 2 day(s) | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------|------|--------|--------|------------|
| wlp644 | Ale | Liquid | 100 ml | wlp |