

## Apa

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **37**
- SRM **4.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

### Steps

- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **18.2 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

| Type  | Name                     | Amount        | Yield | EBC |
|-------|--------------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt     | 5 kg (96.2%)  | 80 %  | 5   |
| Grain | Słód pszeniczny Bestmalz | 0.2 kg (3.8%) | 82 %  | 5   |

### Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | Citra    | 5 g    | 30 min | 12 %       |
| Boil                | Citra    | 15 g   | 15 min | 12 %       |
| Boil                | Amarillo | 15 g   | 15 min | 9.5 %      |
| Aroma (end of boil) | Citra    | 30 g   | 5 min  | 12 %       |
| Aroma (end of boil) | Amarillo | 40 g   | 5 min  | 9.5 %      |

### Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 100 ml | Fermentis  |