

# Pale ale

---

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **19**
- SRM **4.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount        | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (90.9%)  | 80 %  | 5   |
| Grain | Platki owsiane       | 0.5 kg (9.1%) | 60 %  | 3   |

## Hops

| Use for             | Name   | Amount | Time  | Alpha acid |
|---------------------|--------|--------|-------|------------|
| Aroma (end of boil) | Citra  | 50 g   | 1 min | 12 %       |
| Aroma (end of boil) | Galaxy | 50 g   | 1 min | 15 %       |
| Aroma (end of boil) | Simcoe | 50 g   | 5 min | 13.2 %     |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safbrew S-33 | Ale  | Dry  | 11.5 g | Fermentis  |