

# Pale Ale #1

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **22**
- SRM **6.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

## Steps

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

## Mash step by step

- Heat up **12.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount         | Yield | EBC |
|-------|--------------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt      | 3.8 kg (90.5%) | 85 %  | 7   |
| Grain | Carahell                       | 0.2 kg (4.8%)  | 77 %  | 26  |
| Grain | Briess - Caracrysal Wheat Malt | 0.2 kg (4.8%)  | 78 %  | 108 |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Pioneer | 20 g   | 55 min | 8.8 %      |
| Boil                | Epic    | 10 g   | 10 min | 4.1 %      |
| Aroma (end of boil) | Pioneer | 10 g   | 0 min  | 8.8 %      |
| Aroma (end of boil) | Epic    | 20 g   | 0 min  | 4.1 %      |

## Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 200 ml | Safale     |