

# Pale ALE USA

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **38**
- SRM **8.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **29.3 liter(s)**
- Total mash volume **39 liter(s)**

## Steps

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

## Mash step by step

- Heat up **29.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

## Fermentables

| Type  | Name                  | Amount         | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt  | 4 kg (41%)     | 80 %  | 5   |
| Grain | Strzegom Pilzneński   | 1 kg (10.3%)   | 80 %  | 4   |
| Grain | Pszenica niesłodowana | 4 kg (41%)     | 75 %  | 3   |
| Grain | Viking Wędzony torfem | 0.5 kg (5.1%)  | 81 %  | 7   |
| Grain | Strzegom Karmel 300   | 0.25 kg (2.6%) | 70 %  | 299 |

## Hops

| Use for             | Name         | Amount | Time   | Alpha acid |
|---------------------|--------------|--------|--------|------------|
| Boil                | Enigma (AUS) | 30 g   | 60 min | 17.2 %     |
| Aroma (end of boil) | Willamette   | 30 g   | 5 min  | 5 %        |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11 g   | ---        |