

# PALE ALE

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- Gravity **13.7 BLG**
- ABV ---
- IBU **50**
- SRM **9.9**
- 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 **15.5 liter(s)**
- Total mash volume **20.6 liter(s)**

## Steps

- Temp **53 C**, Time **15 min**
- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **15.5 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount          | Yield | EBC |
|-------|----------------------|-----------------|-------|-----|
| Grain | Strzegom Pale Ale    | 4 kg (77.7%)    | 79 %  | 6   |
| Grain | Carahell             | 0.65 kg (12.6%) | 77 %  | 26  |
| Grain | Strzegom Bursztynowy | 0.5 kg (9.7%)   | 70 %  | 49  |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Cascade | 20 g   | 60 min | 7.2 %      |
| Boil                | Citra   | 10 g   | 60 min | 12.4 %     |
| Aroma (end of boil) | Cascade | 10 g   | 15 min | 7.2 %      |
| Aroma (end of boil) | Citra   | 20 g   | 15 min | 12.4 %     |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |