

# PPA

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **30**
- SRM **9.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **70 C**, Time **60 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **60 min** at **70C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3.5 kg (58.3%) | 80 %  | 5   |
| Grain | słód red ale         | 1 kg (16.7%)   | 80 %  | 60  |
| Grain | słód viking caramel  | 1.5 kg (25%)   | 80 %  | 30  |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | lunga   | 30 g   | 30 min | 11 %       |
| Boil    | Sybilla | 30 g   | 30 min | 3.5 %      |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale  | Dry  | 15 g   | safale     |

## Notes

- szybkie piwo na odpierdol bo mam mało czasu :)  
Nov 9, 2022, 8:33 AM