

# APA

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **39**
- SRM **4.4**
- 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 **4 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **19 min**

## Mash step by step

- Heat up **24 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **19 min** at **78C**
- Sparge using **13.7 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       | 5 kg (83.3%)  | 80 %  | 5   |
| Grain | Strzegom Monachijski typ I | 0.5 kg (8.3%) | 79 %  | 16  |
| Grain | Pszeniczny                 | 0.5 kg (8.3%) | 85 %  | 4   |

## Hops

| Use for | Name        | Amount | Time   | Alpha acid |
|---------|-------------|--------|--------|------------|
| Boil    | Magnum      | 25 g   | 60 min | 12.2 %     |
| Boil    | Sorachi Ace | 15 g   | 15 min | 11.3 %     |
| Boil    | Sorachi Ace | 20 g   | 5 min  | 11.3 %     |

## Yeasts

| Name  | Type | Form  | Amount  | Laboratory |
|-------|------|-------|---------|------------|
| us-05 | Ale  | Slant | 1500 ml | ---        |