

# APA

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **30**
- SRM **4.6**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **24.1 liter(s)**
- Total mash volume **30.6 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **24.1 liter(s)** of strike water to **72.2C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **10.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount         | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt   | 1.5 kg (23.1%) | 80 %  | 5   |
| Grain | Viking Pilsner malt    | 1.9 kg (29.2%) | 82 %  | 4   |
| Grain | Simpsons - Maris Otter | 1 kg (15.4%)   | 81 %  | 6   |
| Grain | Słód owsiany Fawcett   | 1 kg (15.4%)   | 61 %  | 5   |
| Grain | Pszeniczny             | 0.8 kg (12.3%) | 85 %  | 4   |
| Grain | Weyermann - Carapils   | 0.3 kg (4.6%)  | 78 %  | 4   |

## Hops

| Use for             | Name                   | Amount | Time     | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 20 g   | 60 min   | 15.5 %     |
| Aroma (end of boil) | Mosaic                 | 24 g   | 0 min    | 10 %       |
| Aroma (end of boil) | Mandarina Bavaria      | 28 g   | 0 min    | 10 %       |
| Aroma (end of boil) | Calypso                | 20 g   | 0 min    | 12 %       |
| Aroma (end of boil) | Simcoe                 | 20 g   | 0 min    | 13.2 %     |
| Aroma (end of boil) | Chinook                | 20 g   | 0 min    | 13 %       |
| Dry Hop             | Galaxy                 | 50 g   | 3 day(s) | 16.3 %     |

|         |                    |      |          |      |
|---------|--------------------|------|----------|------|
| Dry Hop | Chinook            | 20 g | 3 day(s) | 13 % |
| Dry Hop | Mandarina Bavarian | 20 g | 3 day(s) | 10 % |
| Dry Hop | Calypso            | 20 g | 3 day(s) | 12 % |

## Yeasts

| Name                            | Type | Form | Amount | Laboratory |
|---------------------------------|------|------|--------|------------|
| Lallemand - LalBrew Verdant IPA | Ale  | Dry  | 22 g   | Lallemand  |