

# Apa

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **42**
- SRM **3.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

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

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **18.8 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 (31.6%) | 80 %  | 5   |
| Grain       | Viking Wheat Malt      | 1 kg (21.1%)   | 83 %  | 5   |
| Grain       | Viking Pilsner malt    | 1 kg (21.1%)   | 82 %  | 4   |
| Grain       | Płatki owsiane         | 1 kg (21.1%)   | 85 %  | 3   |
| Dry Extract | ekstrakt słodowy suchy | 0.25 kg (5.3%) | --- % | --- |

## Hops

| Use for   | Name    | Amount | Time   | Alpha acid |
|-----------|---------|--------|--------|------------|
| Boil      | Equinox | 10 g   | 60 min | 16.1 %     |
| Whirlpool | Citra   | 10 g   | 45 min | 12 %       |
| Whirlpool | Mosaic  | 40 g   | 45 min | 10.4 %     |

## Yeasts

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

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|        |                |     |      |        |
|--------|----------------|-----|------|--------|
| Fining | Mech irlandzki | 5 g | Boil | 10 min |
|--------|----------------|-----|------|--------|