

# APA

- Gravity **12.9 BLG**
- ABV ---
- IBU **46**
- SRM **10.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **65 min**
- Evaporation rate **15 %/h**
- Boil size **30.7 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **19.3 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **30.7 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount        | Yield  | EBC |
|-------|----------------------------|---------------|--------|-----|
| Grain | Weyermann - Pale Ale Malt  | 4 kg (72.7%)  | 85 %   | 7   |
| Grain | Weyermann pszeniczny jasny | 1 kg (18.2%)  | 80 %   | 6   |
| Grain | Caramunich Malt            | 0.5 kg (9.1%) | 71.7 % | 100 |

## Hops

| Use for             | Name       | Amount | Time     | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil                | Simcoe     | 26 g   | 60 min   | 13.2 %     |
| Aroma (end of boil) | Cascade    | 25 g   | 20 min   | 9.7 %      |
| Aroma (end of boil) | Cascade    | 25 g   | 0 min    | 9.7 %      |
| Dry Hop             | Cascade    | 20 g   | 4 day(s) | 6 %        |
| Dry Hop             | Cascade    | 15 g   | 2 day(s) | 6 %        |
| Dry Hop             | Centennial | 15 g   | 2 day(s) | 10.5 %     |

## Yeasts

| Name                 | Type | Form   | Amount | Laboratory       |
|----------------------|------|--------|--------|------------------|
| FM52 Amerykański Sen | Ale  | Liquid | 40 ml  | Fermentum Mobile |

## Extras

| Type  | Name           | Amount | Use for | Time   |
|-------|----------------|--------|---------|--------|
| Other | liście limonki | 10 g   | Boil    | 10 min |