

# hopa

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **34**
- SRM **6.6**
- 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 **15 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

## Steps

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

## Mash step by step

- Heat up **15.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount          | Yield | EBC |
|-------|-----------------------------|-----------------|-------|-----|
| Grain | Soufflet Pale Ale           | 2.15 kg (41.3%) | 80 %  | 6   |
| Grain | Strzegom Monachijski typ II | 0.35 kg (6.7%)  | 79 %  | 22  |
| Grain | Strzegom Karmel 100         | 0.1 kg (1.9%)   | 75 %  | 150 |
| Grain | Karmelowy 50                | 0.25 kg (4.8%)  | 75 %  | 59  |
| Grain | Viking Pilsner malt         | 2.35 kg (45.2%) | 82 %  | 4   |

## Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Marynka    | 10 g   | 60 min | 7.2 %      |
| Boil    | Centennial | 30 g   | 10 min | 9.4 %      |
| Boil    | Simcoe     | 30 g   | 5 min  | 11.5 %     |
| Boil    | amarillo   | 30 g   | 0 min  | 8.3 %      |
| Boil    | Colombus   | 5 g    | 60 min | 17 %       |

## Yeasts

| Name                     | Type | Form | Amount | Laboratory |
|--------------------------|------|------|--------|------------|
| Gozdawa Pure Ale Yeast 7 | Ale  | Dry  | 10 g   | Gozdawa    |