

# Hopfest pale ale (wersja robocza)

- Gravity **10 BLG**
- ABV **4 %**
- IBU **20**
- SRM **4.5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.3 liter(s)**
- Total mash volume **17.1 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **75 C**, Time **5 min**

## Mash step by step

- Heat up **13.3 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **75C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Strzegom Pilznieński | 3.2 kg (84.2%) | 80 %  | 4   |
| Grain | Strzegom Karmel 300  | 0.05 kg (1.3%) | 70 %  | 299 |
| Grain | Płatki pszeniczne    | 0.3 kg (7.9%)  | 85 %  | 3   |
| Grain | Płatki owsiane       | 0.2 kg (5.3%)  | 85 %  | 3   |
| Grain | zakwaszający         | 0.05 kg (1.3%) | 80 %  | 3   |

## Hops

| Use for   | Name    | Amount | Time   | Alpha acid |
|-----------|---------|--------|--------|------------|
| Boil      | Chinook | 10 g   | 20 min | 12 %       |
| Boil      | Chinook | 20 g   | 10 min | 12 %       |
| Boil      | Mosaic  | 20 g   | 0 min  | 11 %       |
| Whirlpool | Mosaic  | 30 g   | 0 min  | 11 %       |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 10 g   | ---        |