

# Biała plama

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **33**
- SRM **3.6**
- Style **White IPA**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **18.9 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **31.1 liter(s)** of wort

## Fermentables

| Type  | Name                         | Amount        | Yield | EBC |
|-------|------------------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński          | 4 kg (63.5%)  | 80 %  | 4   |
| Grain | Pszeniczny                   | 1 kg (15.9%)  | 85 %  | 4   |
| Grain | Briess - 2 Row Carapils Malt | 0.3 kg (4.8%) | 75 %  | 3   |
| Grain | Płatki pszeniczne            | 0.5 kg (7.9%) | 85 %  | 3   |
| Grain | Płatki owsiane               | 0.5 kg (7.9%) | 85 %  | 3   |

## Hops

| Use for                                | Name    | Amount | Time     | Alpha acid |
|--|---------|--------|----------|------------|
| Boil                                   | Chinook | 20 g   | 30 min   | 13 %       |
| Aroma (end of boil)                    | Mosaic  | 30 g   | 20 min   | 10 %       |
| Whirlpool                              | Mosaic  | 20 g   | 0 min    | 10 %       |
| przetrzymanie 20 min przed chłodzeniem |         |        |          |            |
| Whirlpool                              | Citra   | 20 g   | 0 min    | 13.7 %     |
| przetrzymanie 20 min przed chłodzeniem |         |        |          |            |
| Dry Hop                                | Citra   | 30 g   | 3 day(s) | 12 %       |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safbrew S-33 | Ale  | Dry  | 11.5 g | Safbrew    |

### Extras

| Type   | Name              | Amount | Use for | Time   |
|--------|-------------------|--------|---------|--------|
| Herb   | kolendra          | 15 g   | Boil    | 15 min |
| Flavor | skórka pomarańczy | 10 g   | Boil    | 15 min |
| Flavor | curacao           | 5 g    | Boil    | 15 min |
| Flavor | trawa cytrynowa   | 5 g    | Boil    | 5 min  |