

# Pierwszak

- Gravity **11.9 BLG**
- ABV ---
- IBU **20**
- SRM **7.5**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

## Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23.4 liter(s)**

## Steps

- Temp **50 C**, Time **20 min**
- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **18.2 liter(s)** of strike water to **54.3C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **20 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **25 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

## Fermentables

| Type           | Name                            | Amount         | Yield | EBC |
|----------------|---------------------------------|----------------|-------|-----|
| Grain          | Viking Pilsner malt             | 2.5 kg (37.3%) | 82 %  | 4   |
| Grain          | Viking Wheat Malt               | 2.5 kg (37.3%) | 83 %  | 5   |
| Grain          | Strzegom Karmel 300             | 0.2 kg (3%)    | 70 %  | 299 |
| Adjunct        | Płatki pszeniczne               | 0.5 kg (7.5%)  | 60 %  | 3   |
| Adjunct        | Płatki owsiane                  | 0.5 kg (7.5%)  | 60 %  | 3   |
| Liquid Extract | Miód Gryczany (Buckwheat Honey) | 0.5 kg (7.5%)  | 70 %  | 40  |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Marynka | 20 g   | 60 min | 10 %       |
| Aroma (end of boil) | Citra   | 30 g   | 5 min  | 12 %       |

## Yeasts

| Name  | Type  | Form | Amount | Laboratory |
|-------|-------|------|--------|------------|
| WB-06 | Wheat | Dry  | 17 g   | ---        |

## Extras

| Type   | Name                       | Amount | Use for | Time   |
|--------|----------------------------|--------|---------|--------|
| Spice  | Skórka słodkiej pomarańczy | 10 g   | Boil    | 15 min |
| Spice  | Trawa cytrynowa            | 5 g    | Boil    | 10 min |
| Fining | mech Irlandzki             | 10 g   | Boil    | 15 min |