

# Piwko

- Gravity **14 BLG**
- ABV ---
- IBU **24**
- SRM **7.7**
- Style **Saison**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **15.5 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

## Steps

- Temp **72 C**, Time **15 min**
- Temp **65 C**, Time **45 min**
- Temp **77 C**, Time **1 min**

## Mash step by step

- Heat up **9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **9.5 liter(s)** of **76C** water or to achieve **15.5 liter(s)** of wort

## Fermentables

| Type  | Name        | Amount         | Yield | EBC |
|-------|-------------|----------------|-------|-----|
| Grain | Pilzneński  | 2 kg (66.7%)   | 81 %  | 4   |
| Grain | Monachijski | 0.5 kg (16.7%) | 80 %  | 16  |
| Grain | Cara Hell   | 0.5 kg (16.7%) | 80 %  | 25  |

## Hops

| Use for             | Name          | Amount | Time   | Alpha acid |
|---------------------|---------------|--------|--------|------------|
| Boil                | Kent Goldings | 20 g   | 45 min | 5.5 %      |
| Aroma (end of boil) | Kent Goldings | 30 g   | 5 min  | 5.5 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 7 g    | Safale     |

## Extras

| Type   | Name                | Amount | Use for | Time  |
|--------|---------------------|--------|---------|-------|
| Flavor | Skórka z pomarańczy | 20 g   | Boil    | 5 min |