

# Pierniczkowe

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **20**
- SRM **19.3**

## Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **55 liter(s)**
- Boil time **60 min**
- Evaporation rate **11 %/h**
- Boil size **66.6 liter(s)**

## Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **49.7 liter(s)**
- Total mash volume **63.9 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**

## Mash step by step

- Heat up **49.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **31.1 liter(s)** of **76C** water or to achieve **66.6 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount          | Yield | EBC  |
|-------|-----------------------------|-----------------|-------|------|
| Grain | Pszeniczny                  | 4.44 kg (31.3%) | 85 %  | 4    |
| Grain | Viking Pale Ale malt        | 3.33 kg (23.5%) | 80 %  | 5    |
| Grain | Strzegom Wiedeński          | 3.33 kg (23.5%) | 79 %  | 10   |
| Grain | Płatki owsiane              | 1.11 kg (7.8%)  | 60 %  | 3    |
| Grain | Briess - Carapils Malt      | 1.44 kg (10.1%) | 74 %  | 3    |
| Grain | Strzegom Czekoladowy ciemny | 0.11 kg (0.8%)  | 68 %  | 1200 |
| Grain | Strzegom Barwiący           | 0.44 kg (3.1%)  | 68 %  | 1300 |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 60 g   | 60 min | 8.6 %      |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| Us-05 | Ale  | Dry  | 33 g   | Fermentis  |

## Extras

| Type   | Name | Amount | Use for | Time   |
|--------|------|--------|---------|--------|
| Fining | mech | 11 g   | Boil    | 15 min |

|        |                    |      |      |       |
|--------|--------------------|------|------|-------|
| Flavor | Skóra pomarańczowa | 72 g | Boil | 5 min |
| Flavor | Cynamon            | 30 g | Boil | 2 min |
| Flavor | Goździki           | 11 g | Boil | 2 min |
| Flavor | Gałka muskatołowa  | 11 g | Boil | 2 min |
| Spice  | kardamon           | 11 g | Boil | 2 min |