

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 |