

# 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