

# Piernikowe

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **52**
- SRM **38.2**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **5.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Thomas Fawcett Halcyon	1.8 kg (51.4%)	80.5 %	5
Grain	Thomas Fawcett Maris Otter Pale Ale	1 kg (28.6%)	80 %	6
Grain	Biscuit Malt	0.2 kg (5.7%)	79 %	45
Grain	Fawcett - Pale Chocolate	0.3 kg (8.6%)	71 %	600
Grain	Carafa III	0.2 kg (5.7%)	70 %	1034

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	hallertauer taurus	20 g	40 min	14 %
Boil	hallertauer taurus	10 g	10 min	14 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Flavor	Ziarna kakaowca	200 g	Secondary	2 day(s)

Spice	Cynamon	7 g	Boil	10 min
Spice	Suszony imbir	3 g	Boil	10 min
Spice	Goździki	2 g	Boil	10 min
Spice	Kardamon	1.5 g	Boil	10 min
Spice	Gałka muskatołowa	1.5 g	Boil	10 min
Spice	Czarny pieprz	1 g	Boil	10 min
Spice	Anyż	1 g	Boil	10 min
Flavor	Skórka pomarańczy	30 g	Boil	10 min