

# Swiateczne piernikowe

- Gravity **18.7 BLG**
- ABV **8.1 %**
- IBU **16**
- SRM **36.7**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.3 liter(s)**
- Total mash volume **31 liter(s)**

## Steps

- Temp **62 C**, Time **25 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **23.3 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **25 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **9.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (38.7%)	80 %	4
Grain	Strzegom Monachijski typ II	3 kg (38.7%)	79 %	22
Grain	Strzegom Karmel 600	0.25 kg (3.2%)	68 %	601
Grain	Biscuit Malt	1 kg (12.9%)	79 %	45
Grain	Strzegom Czekoladowy ciemny	0.5 kg (6.5%)	68 %	1000

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Willamette	25 g	60 min	5 %
Boil	Willamette	15 g	30 min	5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M15 Empire Ale	Ale	Dry	10 g	Mangrove Jack's

## Extras

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Type	Name	Amount	Use for	Time
Spice	Cynamon	40 g	Boil	10 min
Spice	Imbir mielony	15 g	Boil	10 min
Spice	Gałka muszkatołowa	10 g	Boil	10 min
Spice	Goździki	10 g	Boil	10 min
Spice	Kardamon	10 g	Boil	10 min
Spice	Anyż	5 g	Boil	10 min
Spice	Ziele angielskie	5 g	Boil	10 min
Spice	Kolendra	5 g	Boil	10 min
Spice	Pieprz	5 g	Boil	10 min