

# Ja piernicze

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **16**
- SRM **25.4**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- Size with trub loss **20 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **28.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **22.1 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **16.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (72.3%)	79 %	6
Grain	Carafa II	0.23 kg (4.2%)	70 %	812
Grain	Oats, Flaked	0.8 kg (14.5%)	80 %	2
Grain	Jęczmień palony	0.25 kg (4.5%)	55 %	985
Grain	Weyermann - Carared	0.25 kg (4.5%)	75 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa Pure Ale Yeast 7	Ale	Slant	250 ml	---

## Extras

Type	Name	Amount	Use for	Time
Flavor	Milk Sugar (Lactose)	400 g	Boil	10 min

Flavor	Przyprawa piernikowa	40 g	Boil	5 min
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