

# Północnica

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **30**
- SRM **34.5**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.2 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Sparge using **19.6 liter(s)** of **76C** water or to achieve **30.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (74.8%)	79 %	6
Grain	Jęczmień palony obłuszczoney	0.25 kg (4.7%)	65 %	1000
Grain	Jęczmień palony	0.3 kg (5.6%)	55 %	985
Grain	Płatki owsiane	0.3 kg (5.6%)	85 %	3
Grain	Barley, Flaked	0.3 kg (5.6%)	70 %	4
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3.7%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	25 g	30 min	4.5 %
Boil	Fuggles	50 g	50 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
b4	Ale	Dry	10 g	Bulldog