

# Świąteczny czarny płyn 1

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **24**
- SRM **42**
- Style **Oatmeal Stout**

## 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 **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **25.6 liter(s)**
- Total mash volume **32.9 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **25.6 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **30 min** at **72C**
- Sparge using **7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pszeniczny	2 kg (27.3%)	81 %	6
Grain	Viking Pale Ale malt	2 kg (27.3%)	80 %	5
Grain	Jęczmień palony	0.07 kg (1%)	55 %	985
Grain	Monachijski	1 kg (13.7%)	80 %	16
Grain	Strzegom Wiedeński	1 kg (13.7%)	79 %	10
Grain	Strzegom pszenica prażona	0.25 kg (3.4%)	70 %	1000
Grain	Fawcett - Pszeniczny Czekoladowy	0.25 kg (3.4%)	73 %	1001
Grain	czekoladowy żytni	0.25 kg (3.4%)	75 %	1000
Grain	karmelowy ciemny	0.5 kg (6.8%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	13.5 %
Boil	puławski	15 g	10 min	8.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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US-05	Ale	Dry	11.5 g	---
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### Extras

Type	Name	Amount	Use for	Time
Spice	kardamon	3 g	Boil	5 min
Spice	anyż	5 g	Boil	5 min
Spice	laska cynamonu	2 g	Secondary	7 day(s)
Spice	laska wanilii	2 g	Secondary	7 day(s)
Spice	goździki	5 g	Boil	5 min
Spice	curacao	17 g	Boil	5 min
Spice	gałka muszkatałowa	3 g	Boil	5 min