

# Stout Świąteczny

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **21**
- SRM **43.9**
- Style **Sweet 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 **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **18.2 liter(s)**

## Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **13 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3.5 kg (67.3%)	79 %	6
Grain	Płatki owsiane	0.6 kg (11.5%)	60 %	3
Grain	Strzegom Karmel 300	0.3 kg (5.8%)	70 %	299
Grain	Strzegom Czekoladowy 1200	0.5 kg (9.6%)	68 %	1202
Grain	Jęczmień palony	0.3 kg (5.8%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	30 g	60 min	5.1 %
Boil	East Kent Goldings	10 g	30 min	5.1 %
Aroma (end of boil)	East Kent Goldings	10 g	0 min	5.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	1000 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Spice	curacao	30 g	Boil	5 min
Spice	Skórka pomarańczy	30 g	Boil	5 min
Spice	Imbir	2 g	Boil	60 min
Spice	Cynamon	4 g	Boil	60 min
Spice	Kardamon	3 g	Boil	60 min
Spice	Goździki	3 g	Boil	60 min
Spice	Gałka muszkatołowa	3 g	Boil	60 min