

## XMAS STOUT (24.5)

- Gravity **17.5 BLG**
- ABV ---
- IBU **37**
- SRM **59.5**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **24.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.7 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **31.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.9 liter(s)**
- Total mash volume **29.2 liter(s)**

### Steps

- Temp **53 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **21.9 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **31.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4.5 kg (57%)	79 %	6
Grain	Strzegom Karmel 150	1.1 kg (13.9%)	75 %	150
Grain	Żytni	0.5 kg (6.3%)	85 %	8
Grain	Strzegom Czekoladowy ciemny	0.5 kg (6.3%)	68 %	1200
Grain	Płatki owsiane	0.4 kg (5.1%)	85 %	3
Grain	Jęczmień palony	0.3 kg (3.8%)	55 %	985
Sugar	Milk Sugar (Lactose)	0.6 kg (7.6%)	76.1 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	Perle	30 g	30 min	7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Safale S-04	Ale	Slant	200 ml	Safale
-------------	-----	-------	--------	--------

### Extras

Type	Name	Amount	Use for	Time
Spice	Cynamon	20 g	Boil	15 min
Spice	Goździki	10 g	Boil	15 min
Spice	Kardamon	5 g	Boil	15 min
Spice	Curacao	20 g	Boil	10 min