

X-MASS STOUT

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **41**
- SRM **33.6**
- Style **Christmas/Winter Specialty Spiced Beer**

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 **80 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **27.1 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **19.9 liter(s)** of strike water to **76.6C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	6 kg (84.3%)	80 %	4
Grain	Strzegom Karmel 600	0.2 kg (2.8%)	68 %	601
Grain	Strzegom Karmel 300	0.1 kg (1.4%)	70 %	299
Grain	Roasted Wheat Weyermann - Pszenica palona	0.2 kg (2.8%)	54.3 %	837
Grain	Roasted Barley Weyermann - Jęczmień palony	0.1 kg (1.4%)	65 %	1200
Grain	Roasted Rye Weyermann - Żyto palone	0.27 kg (3.8%)	65 %	800
Grain	Płatki owsiane	0.25 kg (3.5%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	Marynka	30 g	15 min	10 %

Boil	Relax	30 g	15 min	1 %
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Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M42 New World Strong Ale	Ale	Dry	10 g	Mangrove Jacks

Extras

Type	Name	Amount	Use for	Time
Water Agent	Kwas mlekowy	3 g	Mash	55 min
Korekta do 5,4-5,6 pH 5 minut po wsypaniu słodów + woda do wystładzania				
Spice	Cukier kandyzowany (ciemny)	300 g	Boil	10 min
Spice	Imbir	15 g	Boil	10 min
Spice	Skórka pomarańcza	55 g	Boil	10 min
Spice	Cynamon	5 g	Boil	5 min
Spice	Gałka Muszkatołowa	5 g	Boil	5 min
Spice	Goździki	1 g	Boil	5 min
Spice	Przyprawa do piernika	10 g	Boil	5 min

Notes

- Gałka muszkatołowa , przyprawa do piernika x2, Cynamon - po ok 1 łyżeczce
Goździki ok 12-15 szt (1g)
Otarta skórka z 3 pomarańczy (55g)
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