

xmas porter

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **25**
- SRM **26.7**
- Style **Brown Porter**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **19.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **16.2 liter(s)**

Steps

- Temp **69 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **12.1 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **0 min** at **76C**
- Sparge using **11.6 liter(s)** of **76C** water or to achieve **19.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2.3 kg (56.8%)	80 %	7
Grain	Strzegom Wiedeński	1 kg (24.7%)	79 %	10
Grain	Brown Malt (British Chocolate)	0.4 kg (9.9%)	70 %	200
Grain	Słód Caramunich Typ II Weyermann	0.15 kg (3.7%)	73 %	120
Grain	Carafa II	0.1 kg (2.5%)	70 %	1200
Grain	Czekoladowy	0.1 kg (2.5%)	60 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Nelson Sauvín	16 g	70 min	10.7 %