

# Brown Porter (Świąteczny)

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **19**
- SRM **25**
- Style **Brown Porter**

## 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 **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **77 C**, Time **5 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3 kg (66.7%)	85 %	7
Grain	Brown Malt (British Chocolate)	0.5 kg (11.1%)	70 %	128
Grain	Castle Cafe	0.2 kg (4.4%)	75.5 %	480
Grain	Strzegom Karmel 300	0.2 kg (4.4%)	70 %	299
Grain	Czekoladowy	0.2 kg (4.4%)	60 %	1000
Grain	Płatki owsiane	0.4 kg (8.9%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	20 g	45 min	9 %
Aroma (end of boil)	Oktawia	10 g	0 min	9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Flavor	Sok z pomarańczy	30 g	Boil	0 min
Flavor	Suszone pomarańcze	30 g	Boil	0 min
Flavor	Zest z pomarańczy	30 g	Boil	0 min