

Porter

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **23**
- SRM **20.4**
- 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 **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.5 liter(s)**
- Total mash volume **20.6 liter(s)**

Steps

- Temp **67 C**, Time **90 min**

Mash step by step

- Heat up **15.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.7 kg (71.8%)	80 %	8
Grain	Strzegom Karmel 150	0.3 kg (5.8%)	75 %	150
Grain	Fawcett - Brown	0.6 kg (11.7%)	72 %	180
Grain	Weyermann - Chocolate Wheat	0.15 kg (2.9%)	74 %	1050
Grain	Jęczmień niesłodowany	0.4 kg (7.8%)	75 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Styrian Golding	40 g	60 min	2.8 %
Boil	East Kent Goldings	10 g	60 min	5.1 %
Boil	East Kent Goldings	20 g	15 min	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11.5 g	Danstar