

porter

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **26**
- SRM **23.3**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.6 liter(s)**
- Total mash volume **26.5 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **20.6 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale Viking Malt	5 kg (84.9%)	80 %	7
Grain	Strzegom Karmel 150	0.14 kg (2.4%)	75 %	150
Grain	Cafe CM	0.25 kg (4.2%)	75.5 %	480
Grain	Roasted Barley CM	0.25 kg (4.2%)	55 %	985
Grain	Brown Malt (British Chocolate)	0.25 kg (4.2%)	70 %	128

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	13.5 %
Aroma (end of boil)	Marynka	15 g	10 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Windsor Ale	Ale	Dry	11 g	Danstar

Extras

Type	Name	Amount	Use for	Time
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Flavor	kawa	50 g	Boil	0 min
Flavor	kawa	100 g	Secondary	2 day(s)