

# Crystal Palace Porter

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **22**
- SRM **21.3**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **32.6 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **26 liter(s)**
- Total mash volume **31.2 liter(s)**

## Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **26 liter(s)** of strike water to **71.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **32.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	4 kg (76.9%)	81 %	6
Grain	Caramel/Crystal Malt - 120L	0.5 kg (9.6%)	72 %	160
Grain	Brown Malt (British Chocolate)	0.5 kg (9.6%)	70 %	185
Grain	Chocolate Malt (UK)	0.2 kg (3.8%)	73 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Fuggles	40 g	100 min	4.5 %
Aroma (end of boil)	Fuggles	20 g	15 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM10 O czym szumią wierzby	Ale	Liquid	100 ml	Fermentum Mobile
FM52 Amerykański Sen	Ale	Liquid	100 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Water Agent	epsom salt	1.3 g	Mash	60 min
Water Agent	canning salt	1.3 g	Mash	60 min
Water Agent	epsom salt	0.6 g	Boil	60 min
Water Agent	canning salt	0.6 g	Boil	60 min

### Notes

- Ca 62, Mg 10, Na 24, SO 41, Cl 37, 100% wody kranowej.  
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