

# czekoladowy porter

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **23.7**
- 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 **14.9 liter(s)**
- Total mash volume **19.8 liter(s)**

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.3 kg (66.7%)	80 %	5
Grain	Fawcett - Brown	0.5 kg (10.1%)	72 %	180
Grain	Strzegom Monachijski typ I	0.5 kg (10.1%)	79 %	16
Grain	Caramel/Crystal Malt - 120L	0.4 kg (8.1%)	72 %	236
Grain	Weyermann - Chocolate Wheat	0.25 kg (5.1%)	74 %	788

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	40 g	60 min	4.4 %
Aroma (end of boil)	Fuggles	25 g	10 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM12 W szkocką kratę	Ale	Liquid	1300 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Flavor	ziarno kakaowca	200 g	Boil	10 min