

# ciemne

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- Gravity **19.3 BLG**
- ABV **8.4 %**
- IBU **33**
- SRM **62.3**
- Style **Baltic 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 **75 %**
- Liquor-to-grist ratio **2.4 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **32.3 liter(s)**

## Steps

- Temp **67 C**, Time **80 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **22.8 liter(s)** of strike water to **76.8C**
- Add grains
- Keep mash **80 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (52.6%)	80 %	5
Grain	Viking Munich Malt	1 kg (10.5%)	78 %	18
Grain	Strzegom Karmel 300	2 kg (21.1%)	70 %	299
Grain	Strzegom Czekoladowy ciemny	1 kg (10.5%)	68 %	1200
Grain	Fawcett - Brown	0.5 kg (5.3%)	72 %	180

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	30 g	60 min	15 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa - Pure Ale Yeast 7	Ale	Slant	300 ml	Gozdawa