

# ciemno mi

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- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **38**
- SRM **33.7**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **27.4 liter(s)**

## Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **21.3 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	2 kg (27.4%)	90 %	10
Grain	biskopowy	2 kg (27.4%)	90 %	100
Grain	pilzenski	1 kg (13.7%)	90 %	4
Liquid Extract	Pilzneński	1.2 kg (16.4%)	100 %	4
Grain	pszeniczny karmelowy	0.5 kg (6.8%)	70 %	---
Grain	Czekoladowy	0.3 kg (4.1%)	60 %	788
Grain	Strzegom Barwiący	0.3 kg (4.1%)	68 %	1300

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	11 %
Boil	lunga	30 g	20 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
gestwa	Ale	Slant	100 ml	au