

# Czekoladowy pils

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **23**
- SRM **13.4**

## Batch size

- Expected quantity of finished beer **29 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **33.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **25 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **25 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **33.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód PILZNEŃSKI Strzegom	4 kg (66.7%)	80 %	4
Grain	Strzegom Monachijski typ I	1.5 kg (25%)	79 %	16
Grain	Strzegom Czekoladowy jasny	0.5 kg (8.3%)	68 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	szyszka	40 g	60 min	5 %
Boil	Fuggles	25 g	20 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11.5 g	---

## Notes

- Za długo wysładzałem i za dużo wyszło, mało miejsca w fermentorze.  
*Nov 5, 2019, 10:41 PM*