

# Czekoladka bez laktozy

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **29**
- SRM **34.7**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **100 min**
- Evaporation rate **5 %/h**
- Boil size **26.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **69 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.2 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **10 min** at **78C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (37%)	80 %	5
Grain	Monachijski	1 kg (18.5%)	80 %	16
Grain	Słód owsiany Fawcett	1 kg (18.5%)	61 %	5
Grain	Fawcett - Brown	0.35 kg (6.5%)	72 %	180
Grain	Fawcett - Pale Chocolate	0.3 kg (5.6%)	71 %	600
Grain	Fawcett - Pszeniczny Czekoladowy	0.3 kg (5.6%)	73 %	1001
Grain	Weyermann - Dehusked Carafa II	0.2 kg (3.7%)	70 %	837
Grain	Strzegom Monachijski typ II	0.15 kg (2.8%)	79 %	22
Grain	Amber Malt	0.1 kg (1.9%)	75 %	43

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	25 g	60 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	12.5 g	Danstar

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Lactic Acid	5 g	Mash	60 min
Water Agent	CaCl <sub>2</sub>	5 g	Mash	60 min
Water Agent	NaCl	5 g	Mash	60 min
Fining	Whirlfloc	2.5 g	Boil	10 min
Flavor	Łuska kakaowca	25 g	Secondary	5 day(s)