

# Kozi Laczek

- Gravity **22.7 BLG**
- ABV **10.3 %**
- IBU **25**
- SRM **13.1**
- Style **Doppelbock**

## Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **6 %**
- Size with trub loss **17 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **19.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **66 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **20 min** at **66C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **5.7 liter(s)** of **76C** water or to achieve **19.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	3 kg (42.9%)	79 %	10
Grain	Strzegom Monachijski typ I	1 kg (14.3%)	79 %	16
Grain	Strzegom Monachijski typ II	1 kg (14.3%)	79 %	22
Grain	Wędzony bukiem Viking Malt	1 kg (14.3%)	82 %	10
Grain	Biscuit Malt	0.5 kg (7.1%)	79 %	45
Grain	Melanoiden Malt	0.5 kg (7.1%)	80 %	39

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	24 g	50 min	10 %
Aroma (end of boil)	Lublin (Lubelski)	15 g	10 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11 g	Fermentis