

# Kozioł

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU ---
- SRM **10.1**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **65 C**, Time **25 min**
- Temp **73 C**, Time **45 min**
- Temp **77 C**, Time **5 min**

## Mash step by step

- Heat up **22.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **25 min** at **65C**
- Keep mash **45 min** at **73C**
- Keep mash **5 min** at **77C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Monachinski Strzegom 12-18 EBC	4 kg (53.3%)	79 %	15
Grain	Słód Pilzneński Viking Malt 3,2-4,5	2 kg (26.7%)	80 %	4
Grain	Aromatic Malt	0.5 kg (6.7%)	78 %	51
Grain	Melanoiden Malt	0.5 kg (6.7%)	80 %	39
Grain	Słód Monachijski Typ II Viking Malt 12-18 EBC	0.5 kg (6.7%)	79 %	14

## Yeasts

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