

# Koźlak

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **31**
- SRM **6.5**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **8 %**
- Size with trub loss **23.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **29.1 liter(s)**

## Mash information

- Mash efficiency **76 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **19.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **77C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilznieński	3 kg (46.2%)	81 %	4
Grain	Viking Pale Ale malt	1 kg (15.4%)	80 %	5
Grain	Strzegom Wiedeński	1 kg (15.4%)	79 %	10
Grain	Strzegom Monachijski typ I	0.5 kg (7.7%)	79 %	16
Grain	Carahell	1 kg (15.4%)	77 %	26

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Marynka	30 g	50 min	10 %
Aroma (end of boil)	Lublin (Lubelski)	15 g	15 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Dry	11 g	Fermentis Division of S.I.Lesaffre