

# Koźlak

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **25**
- SRM **17.9**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.8 liter(s)**

## Steps

- Temp **62 C**, Time **35 min**
- Temp **72 C**, Time **25 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **20.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **35 min** at **62C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (29.9%)	80 %	4
Grain	Strzegom Monachijski typ I	1.8 kg (26.9%)	79 %	16
Grain	Strzegom Wiedeński	1.8 kg (26.9%)	79 %	10
Grain	Strzegom Karmel 150	0.8 kg (11.9%)	75 %	150
Grain	Strzegom Karmel 300	0.3 kg (4.5%)	70 %	299

## Hops

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

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast XL 2308 - Munich Lager	Lager	Slant	250 ml	Wyeast Labs