

# Kozlak

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- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **22**
- SRM **10.6**
- 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 **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **27.6 liter(s)**

## Steps

- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **35 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **20.7 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **35 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (58%)	80 %	4
Grain	Monachijski	2 kg (29%)	80 %	16
Grain	Pszeniczny	0.3 kg (4.3%)	85 %	4
Grain	Strzegom Karmel 150	0.3 kg (4.3%)	75 %	150
Grain	Caramunich® typ I	0.3 kg (4.3%)	73 %	80

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	20 g	60 min	5 %
Boil	Perle	20 g	50 min	5 %
Boil	Perle	15 g	20 min	5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	500 ml	---

## Extras

Type	Name	Amount	Use for	Time
Fining	whirfloc	0.5 g	Boil	10 min