

# KOZIOŁ

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **22**
- SRM **19.1**
- 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 **80 min**
- Evaporation rate **10 %/h**
- Boil size **26.7 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

## Steps

- Temp **62 C**, Time **35 min**
- Temp **72 C**, Time **35 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **19.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **35 min** at **62C**
- Keep mash **35 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **26.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Minich	2.5 kg (37.9%)	80.5 %	16
Grain	BESTMALZ - Best Minich	1 kg (15.2%)	80.5 %	28
Grain	BESTMALZ - Best Vienna	1.5 kg (22.7%)	80.5 %	9
Grain	Karmelowy Jasny 30EBC	0.5 kg (7.6%)	75 %	30
Grain	Strzegom Karmel 600	0.3 kg (4.5%)	68 %	601
Grain	BESTMALZ - Best Melanoidin	0.3 kg (4.5%)	75 %	71
Grain	Płatki owsiane	0.5 kg (7.6%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	35 g	70 min	5.5 %
Boil	Tradition	20 g	10 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M84 Bohemian Lager	Lager	Slant	420 ml	---

### Extras

Type	Name	Amount	Use for	Time
Fining	whirlfloc	1.25 g	Boil	10 min