

# Koziak

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **25**
- SRM **9.5**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **28 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

## Steps

- Temp **65 C**, Time **55 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **55 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **28 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Wiedeński	3 kg (50%)	81 %	8
Grain	Weyermann - Monachijski I	2 kg (33.3%)	82 %	14
Grain	Weyermann - Melanoidynowy	0.5 kg (8.3%)	81 %	70
Grain	Castle malting - owsiany	0.25 kg (4.2%)	61 %	5
Grain	Bestmalz - Caramel Munich I	0.25 kg (4.2%)	75 %	90

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	50 min	10 %
Boil	Saaz (Czech Republic)	20 g	30 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Gozdawa Pure Ale Yeast 7	Ale	Dry	8 g	---
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