

# Koziołek

- Gravity **16.8 BLG**
- ABV ---
- IBU **16**
- SRM **21**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **32.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24.5 liter(s)**
- Total mash volume **32.6 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **45 min**

## Mash step by step

- Heat up **24.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **64C**
- Keep mash **45 min** at **72C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **32.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.8 kg (22.1%)	80 %	4
Grain	Strzegom Wiedeński	1.8 kg (22.1%)	79 %	10
Grain	Strzegom Monachijski typ I	3.5 kg (42.9%)	79 %	16
Grain	Strzegom Karmel 300	0.2 kg (2.5%)	70 %	299
Grain	Carabelge	0.25 kg (3.1%)	80 %	30
Grain	Abbey Castle	0.25 kg (3.1%)	80 %	45
Grain	Strzegom Karmel 150	0.3 kg (3.7%)	75 %	100
Grain	Strzegom Barwiący	0.05 kg (0.6%)	68 %	1300

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	25 g	75 min	4 %
Boil	Tradition	15 g	60 min	4 %
Boil	Tradition	15 g	20 min	4 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
FM31 Bawarska Dolina	Lager	Slant	500 ml	Fermentum Mobile