

# koźlok

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **23**
- SRM **18.7**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **100 min**
- Evaporation rate **10 %/h**
- Boil size **14.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.6 liter(s)**
- Total mash volume **17.4 liter(s)**

## Steps

- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **13.6 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **15 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **5 liter(s)** of **76C** water or to achieve **14.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	2.3 kg (59.4%)	79 %	16
Grain	red active viking malt	0.57 kg (14.7%)	79 %	35
Grain	Weyermann - Melanoiden Malt	0.2 kg (5.2%)	81 %	80
Grain	Caramunich® typ I	0.325 kg (8.4%)	73 %	80
Grain	Strzegom Wiedeński	0.43 kg (11.1%)	79 %	9
Grain	weyermann Czekoladowy ciemny pszeniczny	0.05 kg (1.3%)	68 %	1050
koniec zacierania				

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	11 g	60 min	12.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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wyeast munich lager	Lager	Slant	200 ml	---
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## Notes

- dekokacja 1-warowa w 72 stopniach  
*Oct 29, 2019, 10:11 PM*