

## koźlok 3

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- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **24**
- SRM **17.9**
- 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 **120 min**
- Evaporation rate **10 %/h**
- Boil size **16.6 liter(s)**

### Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.2 liter(s)**
- Total mash volume **18.2 liter(s)**

### Steps

- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **14.2 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **16.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	2.34 kg (57.8%)	79 %	16
Grain	Viking Pale Ale malt	0.66 kg (16.3%)	80 %	5
Grain	red active	0.5 kg (12.3%)	79 %	35
Grain	Weyermann - Carapils	0.15 kg (3.7%)	78 %	4
Grain	Weyermann - Chocolate Wheat	0.1 kg (2.5%)	74 %	788
Grain	red ale viking malt	0.3 kg (7.4%)	75 %	70

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	20 g	60 min	7.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM703 skórzane spodenki	Lager	Slant	300 ml	---