

Koźlak

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **23**
- SRM **15.5**
- 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 **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.1 liter(s)**
- Total mash volume **25.4 liter(s)**

Steps

- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **19.1 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	4 kg (63%)	80 %	16
Grain	Strzegom Monachijski typ II	1.5 kg (23.6%)	79 %	22
Grain	Viking melanoidynowy	0.4 kg (6.3%)	75 %	60
Grain	Weyermann Caramunich 3	0.3 kg (4.7%)	76 %	150
Grain	Special B Malt	0.15 kg (2.4%)	65.2 %	315

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	90 min	11 %
Boil	lunga	10 g	60 min	11 %
Boil	Hersbrucker	15 g	15 min	3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Bavarian Lager	Lager	Slant	300 ml	Wyeast Labs

Extras

Type	Name	Amount	Use for	Time
Fining	whirlfloc	1 g	Boil	7 min