

Koźlak

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **33**
- SRM **8.1**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17.7 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pilsneński viking malt	3 kg (50.8%)	80 %	4
Grain	słód monachijski I viking malt	1 kg (16.9%)	80 %	6
Grain	słód wiedeński viking malt	0.5 kg (8.5%)	79 %	8
Grain	Strzegom Bursztynowy	0.7 kg (11.9%)	70 %	49
Grain	Karmelowy Jasny 30EBC	0.7 kg (11.9%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	marynka	35 g	60 min	8 %
Aroma (end of boil)	marynka pl	15 g	10 min	8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11 g	---