

koźlak

- Gravity **28.1 BLG**
- ABV **13.6 %**
- IBU **41**
- SRM **14.8**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **37.5 liter(s)**
- Total mash volume **52.5 liter(s)**

Steps

- Temp **50 C**, Time **30 min**
- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **37.5 liter(s)** of strike water to **56C**
- Add grains
- Keep mash **30 min** at **50C**
- Keep mash **60 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	5 kg (33.3%)	79 %	10
Grain	Strzegom Monachijski typ II	5 kg (33.3%)	79 %	22
Grain	Strzegom Monachijski typ I	5 kg (33.3%)	79 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	60 min	13.9 %
Boil	Waimea	30 g	60 min	15.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	150 ml	Fermentis

Extras

Type	Name	Amount	Use for	Time
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Flavor	bób tonka	7.5 g	Boil	15 min
Flavor	bób tonka	7.5 g	Secondary	7 day(s)