

Koziółek

- Gravity **18.4 BLG**
- ABV ---
- IBU **28**
- SRM **21.9**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **8 %**
- Size with trub loss **13 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **16 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18.3 liter(s)**

Steps

- Temp **52 C**, Time **15 min**
- Temp **68 C**, Time **30 min**
- Temp **78 C**, Time **5 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **56.9C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **30 min** at **68C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **6.3 liter(s)** of **76C** water or to achieve **16 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	2.5 kg (58.8%)	--- %	22
Grain	Strzegom Wiedeński	1.25 kg (29.4%)	--- %	10
Grain	Acid Malt	0.1 kg (2.4%)	58.7 %	6
Grain	Oats, Flaked	0.3 kg (7.1%)	--- %	2
Grain	Strzegom Karmel 600	0.1 kg (2.4%)	68 %	601

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	hallertauer magnum	10 g	60 min	13.5 %
Boil	Hallertau comet	10 g	20 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
brewmasters lager	Lager	Slant	500 ml	Mangrove Jack's

Extras

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	3 g	Boil	60 min
Water Agent	chlorek wapnia	4 g	Mash	---