

koziół

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **26**
- SRM **8.4**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **62 C**, Time **10 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **10 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1 kg (25%)	80 %	4
Grain	Monachijski	2 kg (50%)	80 %	16
Grain	Strzegom Wiedeński	1 kg (25%)	79 %	10

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	13 g	60 min	11 %
Boil	saaz	10 g	10 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	100 ml	---