Kozioł

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **26**
- SRM **13.4**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **30.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **28.1 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **20.5 liter(s)** of strike water to **55.6C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	6 kg *(78.9%)*	79 %	10
Grain	Pilzneński	0.5 kg *(6.6%)*	81 %	4
Grain	Special B Castle	0.3 kg *(3.9%)*	70 %	400
Grain	Aromatic Malt BESTMALZ	0.3 kg *(3.9%)*	78 %	50
Grain	Monachijski	0.5 kg *(6.6%)*	80 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	45 min	12 %
Aroma (end of boil)	Hallertauer Mittelfrüh	30 g	0 min	3 %

Yeasts

Name	Type	Form	Amount	Laboratory
34/70	Lager	Slant	500 ml	---

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