

Koźlak

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **28**
- SRM **31.1**
- Style **Traditional Bock**

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 **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **20.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **78C**
- Sparge using **11.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (44.1%)	80 %	4
Grain	Strzegom Monachijski typ II	2 kg (29.4%)	79 %	22
Grain	Strzegom Karmel 100	1 kg (14.7%)	75 %	100
Grain	Caramel aromatic	0.5 kg (7.4%)	70 %	180
Grain	Strzegom Czekoladowy ciemny	0.3 kg (4.4%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tettnang	75 g	60 min	4 %