

# Kozlak

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **23**
- SRM **25.4**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.1 liter(s)**
- Total mash volume **28.4 liter(s)**

## Steps

- Temp **62 C**, Time **35 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **20 min**

## Mash step by step

- Heat up **22.1 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **35 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **20 min** at **76C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.8 kg (28.6%)	80 %	4
Grain	Monachijski	1.7 kg (27%)	80 %	16
Grain	wiedeński steinbach	1.7 kg (27%)	100 %	30
Grain	Karmelowy Jasny 30EBC	0.8 kg (12.7%)	75 %	30
Grain	Strzegom Czekoladowy ciemny	0.3 kg (4.8%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Spalt Select	75 g	60 min	3.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11 g	Fermentis