

# Kozlak GF

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- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **27**
- SRM **16.9**
- Style **Traditional Bock**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **20.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **0 min** at **78C**
- Sparge using **11.7 liter(s)** of **76C** water or to achieve **20.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (44.4%)	80 %	5
Grain	Monachijski	2 kg (44.4%)	80 %	16
Grain	Strzegom Karmel 300	0.5 kg (11.1%)	70 %	299

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	7.3 %
Aroma (end of boil)	Marynka	20 g	5 min	7.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis