

# kozlak

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **20**
- SRM **3.6**
- Style **American IPA**

## 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 **14.3 liter(s)**
- Total mash volume **19 liter(s)**

## Steps

- Temp **63 C**, Time **10 min**
- Temp **72 C**, Time **120 min**

## Mash step by step

- Heat up **14.3 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **10 min** at **63C**
- Keep mash **120 min** at **72C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (42.1%)	80 %	5
Grain	Pszeniczny	1.25 kg (26.3%)	85 %	4
Grain	Płatki pszeniczne	0.5 kg (10.5%)	60 %	3
Grain	Płatki owsiane	1 kg (21.1%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	30 min	10 %
Boil	Marynka	10 g	5 min	10 %