

# Ekogroszek

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **67**
- SRM **25.6**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **15.2 liter(s)**

## Steps

- Temp **52 C**, Time **5 min**
- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **11.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **8.1 liter(s)** of **76C** water or to achieve **15.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (78.9%)	80 %	5
Grain	Weyermann Caramunich 3	0.05 kg (1.3%)	76 %	150
Grain	Pszeniczny	0.5 kg (13.2%)	85 %	4
Grain	Carafa III	0.25 kg (6.6%)	70 %	1034

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	11 %
Boil	sabro idaho 7	60 g	10 min	10 %
Whirlpool	mix usa	60 g	0 min	10 %
Dry Hop	mix usa0 cyro	50 g	2 day(s)	10 %