

# krówka

- Gravity **15 BLG**
- ABV ---
- IBU **18**
- SRM **14.5**

## 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 **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

## Steps

- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **18.3 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **50 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - 2 Row Carapils Malt	1.5 kg (24.6%)	75 %	3
Grain	Strzegom Pale Ale	4 kg (65.6%)	79 %	6
Grain	Caramunich Malt	0.5 kg (8.2%)	71.7 %	110
Grain	Strzegom Karmel 300	0.1 kg (1.6%)	70 %	299

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	60 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	20 g	15 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar