

## Rogen #2

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **17**
- SRM **10.9**
- Style **Roggenbier**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **21.4 liter(s)**
- Total mash volume **27.9 liter(s)**

### Steps

- Temp **44 C**, Time **20 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **21.4 liter(s)** of strike water to **47.6C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	2 kg (30.8%)	85 %	8
Grain	Pszeniczny ciemny	1 kg (15.4%)	85 %	14
Grain	Monachijski	3 kg (46.2%)	80 %	16
Grain	Simpsons - Crystal Rye	0.25 kg (3.8%)	73 %	200
Grain	Melanoiden Malt	0.25 kg (3.8%)	80 %	39

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	11 g	60 min	12 %
Boil	Hallertau Spalt Select	30 g	15 min	2.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Liquid	1000 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Other	łuska	250 g	Mash	60 min