

# Rogen #1

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- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **16**
- SRM **5.7**
- Style **Roggenbier**

## 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 **3.3 liter(s) / kg**
- Mash size **20.6 liter(s)**
- Total mash volume **26.9 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 **20.6 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 **11 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	2 kg (32%)	85 %	8
Grain	Pszeniczny	1 kg (16%)	85 %	4
Grain	Weyermann - Vienna Malt	2 kg (32%)	81 %	8
Grain	Weyermann - Carapils	0.25 kg (4%)	78 %	4
Grain	Słód owsiany Fawcett	1 kg (16%)	61 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	60 min	12 %
Boil	Hallertau	20 g	10 min	4.5 %

## 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	500 g	Mash	60 min

## Notes

- fermentacja w temp. max 18C  
*Oct 6, 2019, 8:47 AM*