

# Roggenbier #1 - Browar Na Wyżynie

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **20**
- SRM **14.1**
- Style **Roggenbier**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **6.5 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **19 %/h**
- Boil size **26.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.1 liter(s)**
- Total mash volume **20.2 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **15.1 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **26.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	żytni Viking Malt	3 kg (59.4%)	75 %	8
Grain	monachijski typ II Viking Malt	1.5 kg (29.7%)	78 %	22
Grain	cookie (bursztynowy) Viking Malt	0.25 kg (5%)	72 %	70
Grain	żytni karmelowy Viking Malt	0.25 kg (5%)	75 %	150
Grain	Carafa® Special III Malt Weyermann®	0.05 kg (1%)	1 %	1400

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Lubelski (PL) - granulata	30 g	100 min	4.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany (2 pokolenie)	Wheat	Slant	300 ml	---

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Kwas fosforowy 75% (zacier)	4 g	Mash	60 min
Water Agent	Kwas fosforowy 75% (wystadzanie)	2 g	Mash	60 min
Water Agent	Gips	2 g	Mash	60 min
Water Agent	Chlorek wapnia	6 g	Mash	60 min
Other	Łuska orkiszowa	250 g	Mash	60 min

## Notes

- <https://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/?id=7XCPFZH>

Ca+2 Mg+2 Na+ Cl- SO4-2 HCO  
69.8 0.0 131.0 118.3 59.8 0.073

SO42-/Cl- ratio: 0.5 Very Malty  
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