# Roggen

- Gravity 13.1 BLG
- ABV 5.3 %
- IBU **14**
- SRM **12.8**
- Style Roggenbier

## **Batch size**

- Expected quantity of finished beer 10 liter(s)
- Trub loss 5 %
- Size with trub loss 10.5 liter(s)
- · Boil time 60 min
- Evaporation rate 20 %/h
- Boil size 13.2 liter(s)

## **Mash information**

- Mash efficiency 70 %
- Liquor-to-grist ratio 4 liter(s) / kg
- Mash size 10.4 liter(s)
- Total mash volume 13 liter(s)

## **Steps**

- Temp 72 C, Time 60 min
  Temp 78 C, Time 5 min

## Mash step by step

- Heat up 10.4 liter(s) of strike water to 78.5C
- Add grains
- Keep mash 60 min at 72C
- Keep mash 5 min at 78C Sparge using 5.4 liter(s) of 76C water or to achieve 13.2 liter(s) of wort

## **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Żytni	1 kg <i>(38.5%)</i>	85 %	8
Grain	Pszeniczny	1 kg <i>(38.5%)</i>	85 %	4
Grain	Special B Malt	0.2 kg (7.7%)	65.2 %	315
Grain	Rye, Flaked	0.4 kg <i>(15.4%)</i>	78.3 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Mittelfruh'19	13.4 g	60 min	4.7 %

#### **Yeasts**

Name	Туре	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Slant	100 ml	Fermentum Mobile

## **Extras**

Туре	Name	Amount	Use for	Time
Water Agent	Łuska ryżowa	100 g	Mash	60 min

#### **Notes**

•	Kwas mlekowy do wysładzania - Nov 13, 2021, 11:29 AM	2ml/12l		