

# red rye ale

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **23**
- SRM **8.9**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **67 C**, Time **70 min**
- Temp **76 C**, Time **2 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **2 min** at **76C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	piłżeński	3 kg (54.5%)	85 %	5
Grain	Żytni	2 kg (36.4%)	85 %	8
Grain	Strzegom Karmel 150	0.5 kg (9.1%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	7.5 %
Boil	Marynka	20 g	20 min	7.5 %
Whirlpool	Marynka	10 g	0 min	7.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa Pure Ale Yeast 7	Ale	Dry	10 g	---