

żytnia

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **19**
- SRM **14.9**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **18.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **18.7 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **14.6 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **7.7 liter(s)** of **76C** water or to achieve **18.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	2.1 kg (50.5%)	85 %	8
Grain	Strzegom Monachijski typ II	2 kg (48.1%)	79 %	22
Grain	Carafa special III 1300-1500	0.06 kg (1.4%)	70 %	1400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sybilla	20 g	60 min	6.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Slant	200 ml	Fermentum Mobile