

Żytnie

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **19**
- SRM **13**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.6 liter(s)**
- Total mash volume **29 liter(s)**

Steps

- Temp **44 C**, Time **20 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **22.6 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	4 kg (62%)	85 %	8
Grain	Monachijski typ II 20-25 EBC Weyermann	1.25 kg (19.4%)	80 %	20
Grain	Weyermann - Pilsner Malt	0.9 kg (14%)	81 %	4
Grain	Caraaroma	0.2 kg (3.1%)	--- %	400
Grain	Carafa	0.1 kg (1.6%)	70 %	664

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Mittelfruch	40 g	60 min	5 %
Boil	Hallertau Mittelfruch	15 g	15 min	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale wb06	Wheat	Dry	14.38 g	---