

## żytnie

- Gravity **13.3 BLG**
- ABV ---
- IBU **22**
- SRM **18.2**
- Style **Roggenbier**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	2.4 kg (45.7%)	85 %	8
Grain	Monachijski	1.3 kg (24.8%)	80 %	16
Grain	Pilzneński	1.2 kg (22.9%)	81 %	4
Grain	Caraaroma	0.15 kg (2.9%)	78 %	400
Grain	Weyermann - Carafa I	0.1 kg (1.9%)	70 %	690
Grain	zakwaszający	0.1 kg (1.9%)	70 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zeus	15 g	40 min	15.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP300 - Hefeweizen Ale Yeast	Wheat	Liquid	110 ml	---

### Extras

Type	Name	Amount	Use for	Time
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Other	łuska ryżowa	50 g	Mash	0 min
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