

## Zytnie 24l No.45

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **14**
- SRM **15.9**
- Style **Roggenbier**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **40 min**
- Evaporation rate **10 %/h**
- Boil size **24.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

### Steps

- Temp **44 C**, Time **40 min**
- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **60 min**

### Mash step by step

- Heat up **13.2 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **40 min** at **44C**
- Keep mash **20 min** at **64C**
- Keep mash **60 min** at **72C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **24.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	1 kg (22.7%)	79 %	22
Grain	Zytni	2.8 kg (63.6%)	85 %	8
Grain	Weyermann Specjal W	0.6 kg (13.6%)	68 %	300

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	25 g	40 min	5.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Ale	Dry	12.9 g	---