

## Kottożytto v2

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- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **23**
- SRM **9.9**
- Style **Roggenbier**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **75 min**
- Evaporation rate **15 %/h**
- Boil size **28.5 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

### Steps

- Temp **44 C**, Time **20 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **79 C**, Time **10 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **79C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **28.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - żytni	2.5 kg (47.6%)	81 %	7
Grain	Weyermann - Pilsner Malt	1 kg (19%)	81 %	5
Grain	Weyermann - Monachijski typ II 20-25 EBC	1.25 kg (23.8%)	80 %	20
Grain	Weyermann - Cararye® żytni karmelowy	0.5 kg (9.5%)	70 %	130

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chmiel Hallertau Tradition (PL)	40 g	75 min	4.5 %
Aroma (end of boil)	Chmiel Hallertau Tradition (PL)	20 g	10 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Fermentis Safbrew™ WB-06	Ale	Dry	11.5 g	Lesaffre Fermentis
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### Extras

Type	Name	Amount	Use for	Time
Other	Łuska ryżowa	100 g	Mash	---
Do wspomżenia filtracji				
Fining	Mech irlandzki	5 g	Boil	10 min