

Kottożytto

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **22**
- SRM **17.3**
- 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 **16.2 liter(s)**
- Total mash volume **21.6 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 **16.2 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 **17.7 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 (46.3%)	81 %	7
Grain	Weyermann - Pilsner Malt	1 kg (18.5%)	81 %	5
Grain	Weyermann - Monachijski typ II 20-25 EBC	1.25 kg (23.1%)	80 %	20
Grain	Weyermann - Cararye® żytni karmelowy	0.5 kg (9.3%)	70 %	130
Grain	Weyermann - Carafa Special III	0.15 kg (2.8%)	70 %	1024

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
Fermentis Safbrew™ WB-06	Ale	Dry	11.5 g	Lesaffre Fermentis

Extras

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