

Roggenbier

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **20**
- SRM **12.7**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 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 **18 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**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Rye Malt	4 kg (66.7%)	85 %	7
Grain	Słód Caramunich Typ II Weyermann	1 kg (16.7%)	73 %	120
Grain	Munich Malt	1 kg (16.7%)	80 %	18

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau	60 g	60 min	3 %
Aroma (end of boil)	Hallertau	30 g	5 min	3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew WB-06	Wheat	Dry	11.5 g	Safbrew