

roggenbier

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **15**
- SRM **18.8**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **44 C**, Time **20 min**
- Temp **62 C**, Time **40 min**
- Temp **64 C**, Time **20 min**
- Temp **79 C**, Time **2 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **64C**
- Keep mash **2 min** at **79C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	3 kg (56.6%)	85 %	8
Grain	Strzegom Monachijski typ II	1 kg (18.9%)	79 %	22
Grain	Strzegom Pilzneński	1 kg (18.9%)	80 %	4
Grain	Słód Caramunich Typ II Weyermann	0.1 kg (1.9%)	73 %	120
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3.8%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lomik	30 g	60 min	3.8 %
Aroma (end of boil)	Lomik	20 g	10 min	3.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Bawarian Wheat	Wheat	Slant	100 ml	ja